COMPUTER MEMORY MANAGEMENT AT RAND

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COMPUTER MEMORY MANAGEMENT AT RAND[*]

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I. INTRODUCTION

When the Rand Computation Center (RCC) first put the 360/65 into production status (December 1968), the memory management considerations were confined to approximately 350K[1] of Processor Storage in which our job stream was multiprogrammed.[2] The problems of core fragmentation and appropriate scheduling algorithms for the efficient utilization of the computer resources were minimal since the environment was dynamic in the sense that any particular unfavorable situation lasted a relatively short period of time. The users in this batch processing environment were usually unaware of memory management problems as long as turnaround was not affected.

Approximately 18 months ago (September 1969) RCC added one million bytes of IBM LCS[3] for use in supporting an on-line system for our users. When the LCS was added, there were immediate memory management problems needing resolution.

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[1] One K is equivalent to 1024 bytes, or 256 words of system 360 storage; one byte has 4 bits; one word is composed of 4 bytes.

[2] Multiprogramming is a software mechanism whereby several jobs can execute concurrently in a computer.

[3] LCS is slower-access memory that can be added to a computer. The difference between the Processor Storage access speed and the LCS access speed is approximately 8 to 1; hence a job would use approximately eight times the number of CPU cycles to execute in LCS as would be required by the same job in Processor Storage.

The batch jobs had to be prevented from executing in LCS. Accidental execution in this slower-speed memory would have created severe accounting problems. It was also necessary to reserve storage for the interactive system when it was not resident. In the case of an ABEND operations would have to quiesce the operating system to restart the interactive system in the desired memory location. This action was certain to affect turnaround for the batch user and delay restart for the on-line user. Though not a primary consideration, the ability to reserve regions with specific memory locations for on-line applications was also found to be desirable. RCC anticipated having several users with interactive programs resident in the machine for several hours; with standard MVT memory management core fragmentation could have become a problem. By restricting these users to predefined regions, core fragmentation could be eliminated for these applications.

Hierarchy Support[1] was rejected as an alternative for managing memory because it did not solve the problem. After the special SYSGEN required, the special link-edits required for tasks using the Hierarchy Storage, and the resident memory required for Hierarchy Support, the problems previously defined still existed. The batch user, by using a JCL manual, could still execute a LCS, though now it would be purposeful. The LCS would still have to be quiesced to guarantee the interactive system storage placement. The core fragmentation from long-running interactive user tasks would still be a part of the Hierarchy Supported environment.

The May 27, 1969 issue of the *IBM Installation Newsletter* described a non-supported, release dependent, modification to the Initiator[2] which allowed memory locations to be assigned to a particular initiator. This was a relatively easy modification to implement, costing less than 100 bytes of non-resident storage, and appeared to solve our problems. This

[1] Hierarchy Support is a SYSGEN option for OS/MVT. It provides for overt selection of the desired memory speed for program execution in slower-speed memory, and default selection of Processor Storage for normal job execution.

[2] The Initiator is an OS system task which handles the housekeeping activities associated with getting a job started and terminated in the system. An Initiator handles jobs sequentially in the system.

modification to the Initiator provided a mechanism whereby when the initiator is started it retains a region of a fixed size, executing the tasks it attaches in this fixed region.

Section II will describe the current environment of the Rand Computation Center. Section III will detail what kind of memory management is accomplished through fixed initiators. Section IV will describe the externals and internals of Fixed Initiator implementation and Sec. V will summarize the effect of this mechanism for memory management.

II. INSTALLATION ENVIRONMENT

A brief description of the RCC environment should aid in describing the production mode of operation using Fixed Initiators to Fence Core.

HARDWARE

Figure II-1 is a diagram of the hardware configuration as of March 1, 1971. There are multiple manufacturer's equipment attached to the IBM 360/65. A Calcomp 2314 disk device, Potter 7-track tape drives, and 1024K of AMPEX ECM[1] have successfully been running in RCC, at a significant cost savings.

SOFTWARE

The production software for the IBM 360/65 is OS/MVT, multiprogramming with a variable number of tasks. There are several local modifications to this system. Several user SVC's have been included for support of the Video Operating System (VOS), Conventional Programming System (CPS), and user systems. The initiator has been modified to allow fixed and floating initiators. Force Task Switching has been implemented to resolve lock-out problems for our on-line users (also applies to the batch environment). Prior to Release 19.3 of MVT there were Rand modifications to collect EXCP counts and high water mark for memory utilization. Release 19.3 saw the end of the accounting patches and the introduction of SMF[2] with extensive use of the user exits.

WORKLOAD CHARACTERISTICS

RCC, during March, is converting from Release 17 to Release 19.3 of MVT on a 360/65 with the usual accompaniment of peripheral devices.

[1] AMPEX ECM is a faster slow-speed storage with an access speed of 2.8 to 1 compared to Processor Storage; that is, a task would take approximately 2.8 times the CPU to execute in ECM as compared to an execution in Processor Storage.

[2] System Management Facilities is an OS SYSGEN option to collect and record resource usage by job.

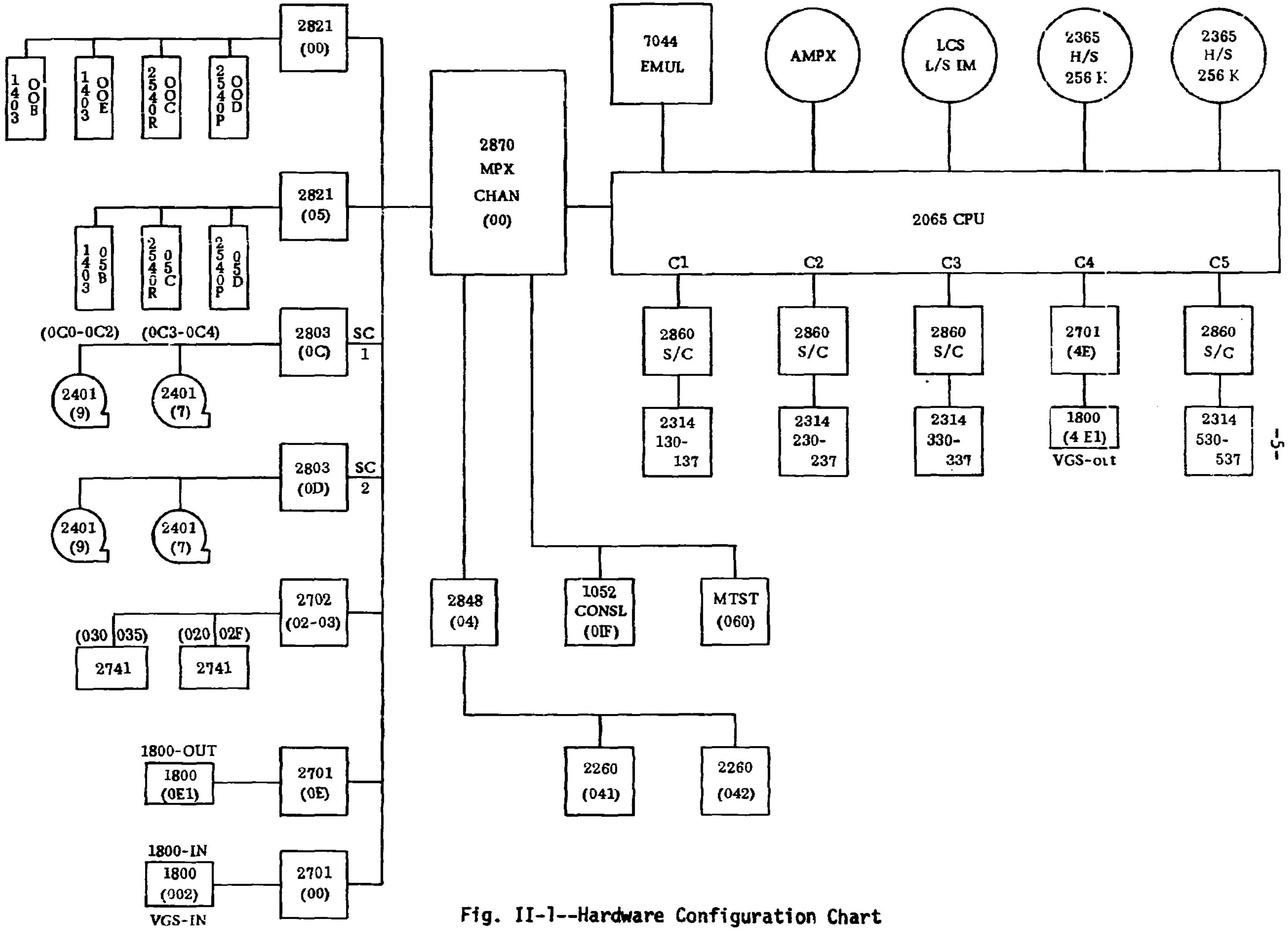


Fig. II-1--Hardware Configuration Chart

Over two hundred batch jobs are processed every day; these are logged in over the counter and returned via the PAL box. Over one hundred RJE jobs are processed every day; these are entered through the two on-line systems. Two on-line systems, having RJE facilities, are available for users between 9:00 a.m. and midnight daily. An IBM/7044 is emulated approximately 30 minutes a night. When measured, the CPU activity is above the 70 percent level.

OBJECTIVES

The Rand Computation Center has specific objectives directing services for our users. First, computing must be provided for corporate and research data processing. Second, hardware and software support must be provided for users developing new systems. And third, interactive services should be provided for the users, and when necessary services do not exist, these services are to be developed. These objectives result in one major constraint on our system. The hardware and software must be maintained in a state that permits easy implementation of new user systems; any system modifications imposing inflexibilities usually cannot be implemented. This restricts the improvements we can make on the system by the effect on the flexibility necessary for the users. And not unlike most computer installations, these objectives and constraints are subject to the overriding requirement for stability and reliability in the system.

III. FIXED INITIATOR CONTROL OF MEMORY

Having discussed the background for and the environment of our Fenced System, let us examine how it is used. Figure III-1 is a memory allocation diagram. There are two and a half million bytes of storage to support our Batch and On-Line/RJE processing. We have 512K of Processor Storage, 1024K of IBM LCS, and 1024K of AMPEX ECM.

BATCH PROCESSING

Figure III-2 describes the Batch Processing environment. In this 512K of Processor Storage, 350K is available for the Batch jobs. This is Rand's MVT environment with 3 or 4 active initiators. The Reader and Writer tasks are not resident in this storage; they reside in the slower-speed memory. Core Fencing controls the batch processing by preventing batch jobs from running in slower-speed storage

ON-LINE PROCESSING

Figure III-3 describes the On-line Processing environment. There are three user tasks and one system task that make up the on-line systems.

The first of these user tasks is a Rand-developed system, VOS. The Video Operating System is a message switching task which performs communication between active OS tasks and the user at a Video Terminal via a 2701 data line between the IBM 1800 and 360/65. Through VOS a user at a Video Terminal can communicate with any or all on-line systems active in OS. And since VOS can provide message paths between the Video Terminal and any tasks in the system, a single user can be connected with several tasks at one time. There are 24 Video Terminals available for the users.

The next user task is Simultaneous Graphics System (SGS), also a Rand-developed system. It is a text editor with RJE facilities. Up to 10 users can be supported in a 60K region. Communications between SGS and the users is through the VOS system.

The third user task is CPS, the class A supported Conversational Programming System with Rand modifications. The PL/1 subset, CPS, is

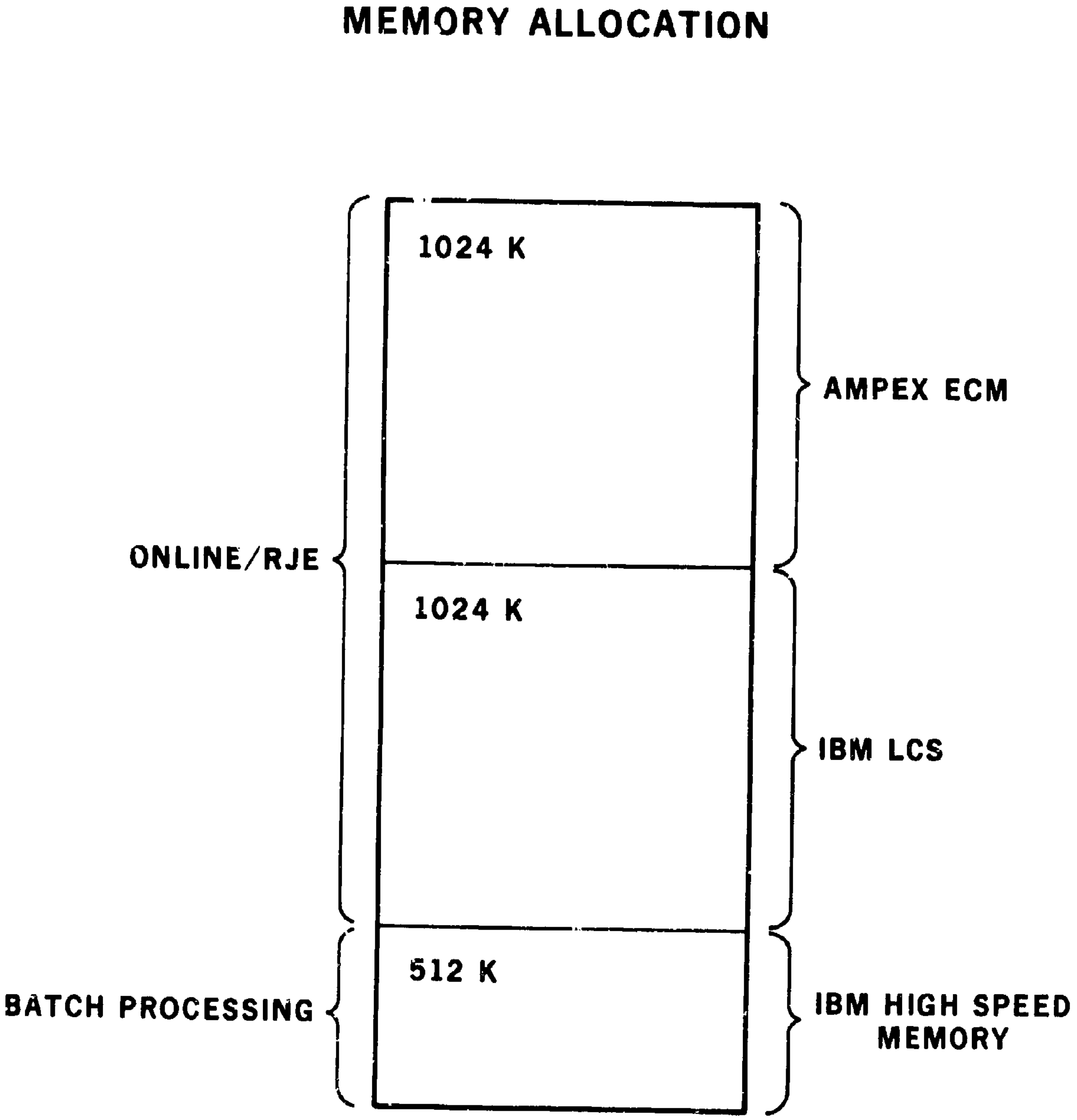


Fig. III-1--Memory Allocation

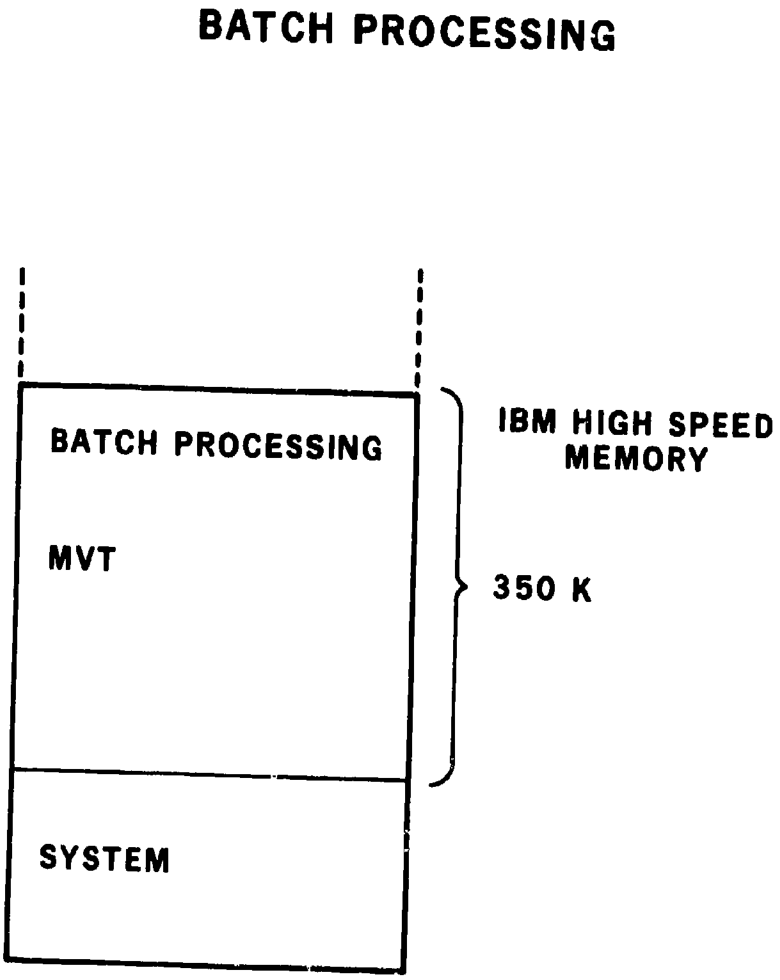


Fig. III-2--Batch Processing

ONLINE SYSTEMS

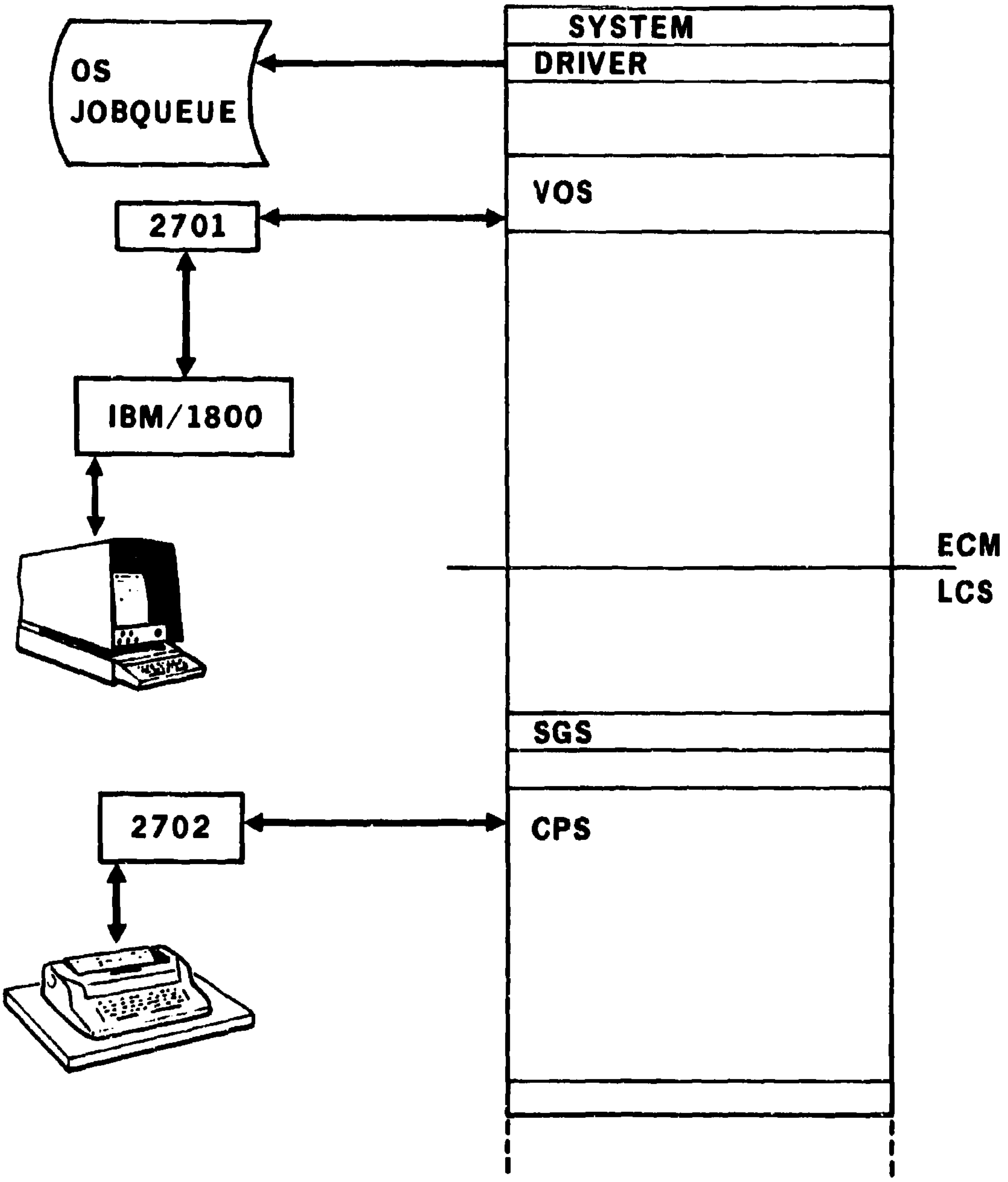


Fig. III-3--On-Line Systems

provided, as is the text editing with RJE facilities. Communication with CPS is through the 2701 to the 2741 typewriter terminals, or through the VOS to the Video Terminals. The Video Communication with CPS is one of the Rand modifications to CPS.

At the top of Fig. III-3 is a System task called DRIVER. DRIVER is a resident reader facility which sequentially processes RJE jobs passed from either SGS or CPS, and enters these jobs into the standard OS job queue. CPS or SGS can pass RJE jobs to DRIVER. Since DRIVER is a system task it must be active to reserve memory. The three user tasks, VOS, SGS, and CPS have Fixed Initiators which reserve the Storage for them when they are not resident.

RJE PROCESSING

In Fig. III-4, which describes RJE Processing, VOS is included because the video facilities are also available to the RJE processing regions. There are three 228K regions, three 104K regions, and one 64K region. The jobs executed in these regions are entered into the system via RJE through DRIVER. These jobs or tasks can include any processing that is normally done in the batch mode, with limitations on tape and disk mounts. That is, normal batch processing can be executed in these regions if the user is willing to pay for the slower-access memory. The purpose of these regions is to permit user-developed on-line systems nonfragmented storage for debugging and production processing. These regions are also used in another way. They can be reserved for projects which require rapid access to the system. An example of this is our Pseudo-50.

A bit of an explanation is necessary for the Pseudo-50. A 360/50 with 256K of Processor Storage, a 5-drive 2314, a printer, a card reader/punch, and a sign-in sheet sat in one corner of the Computer Room, where the users ran in a hands-on mode. These users also had access to the Video system; they IPLed the 360/50 and ran their jobs hands-on.

In order to save money the reader/punch and the printer were connected to the 360/65 and an OS Reader and Writer were provided for these devices, as indicated in Fig. III-5. A Fixed Initiator provided a

RJE PROCESSING

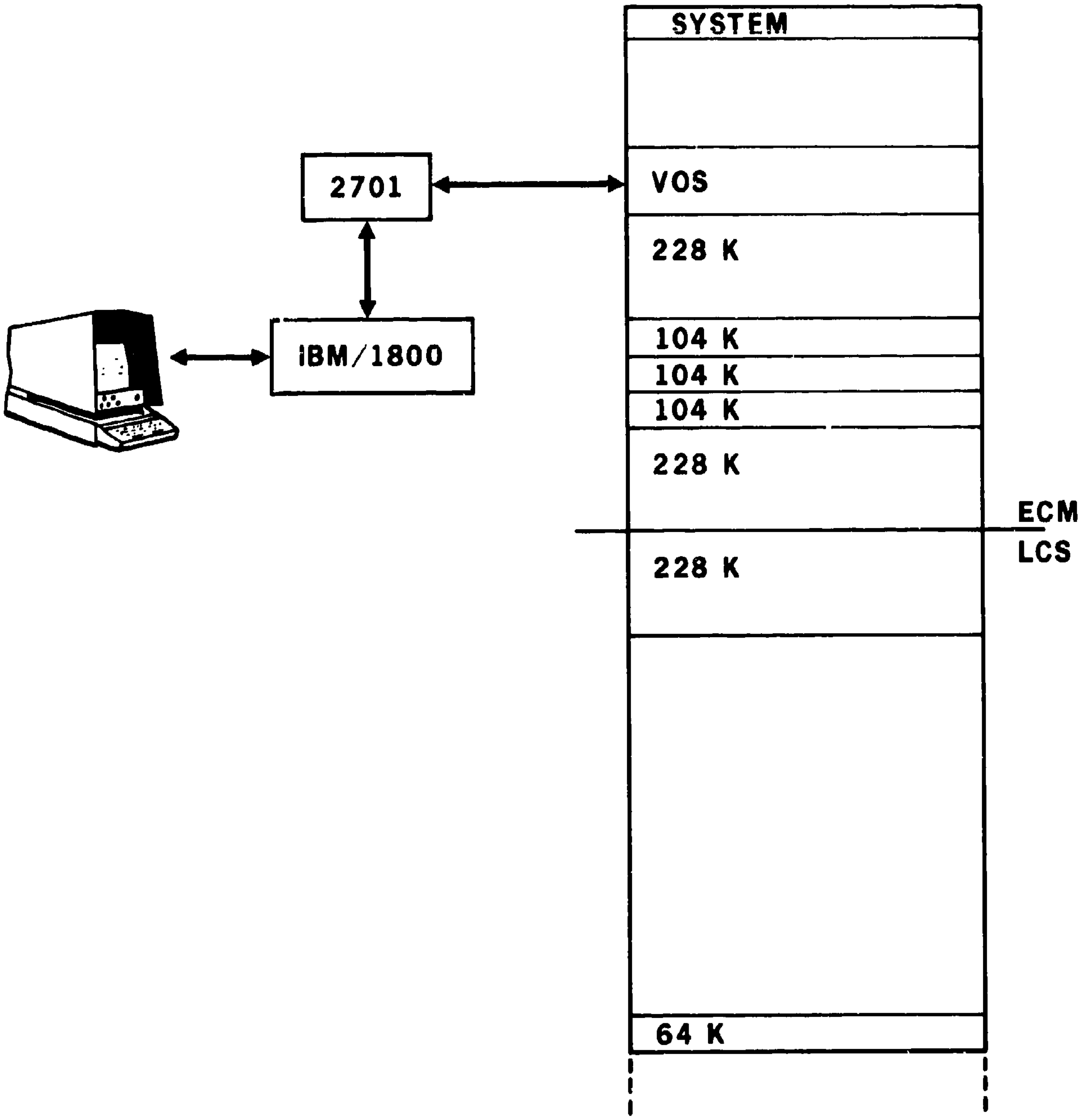


Fig. III-4--RJE Processing

PSEUDO-50

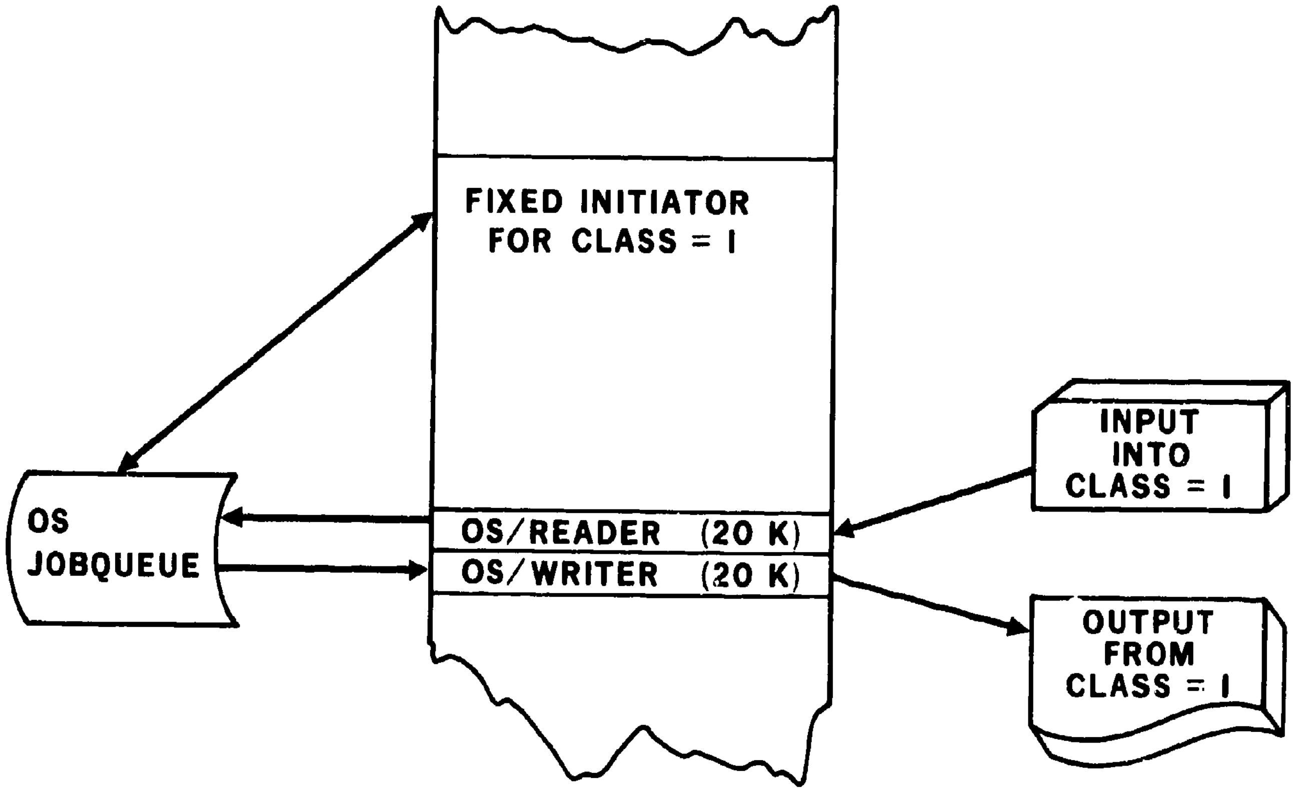


Fig. III-5--Pseudo-50

300K Fenced Region for our Pseudo-50. The sign-in log was maintained and three 2314 drives on the 360/65 were made available to these users. The 360/50 CPU, 256K Processor Storage, and the 5-drive 2314 were returned. The Pseudo-50 user could still enter his cards through the reader, sending the job into the standard OS job queue on the 360/65. The job would be picked up by the Fixed Initiator assigned to the appropriate job class, and when the job completed, the printer output was directed to the printer or card punch at the user location; hence the Pseudo-50. This is an example of how approximately $20,000 per month of equipment rental was saved, and the user had effectively the same environment as the hands-on machine. Without Core Fencing through Fixed Initiators the idea of a Pseudo-50 could not have been accomplished.

Figure III-6 describes the On-line/RJE Processing System with its Fixed Region/Fenced Core. There is purposeful fragmentation; some storage is not fenced (i.e., between DRIVER and VOS). These unfenced regions are reserved for Operation Aids and the Batch Reader and Writers. Batch User jobs are not able to be initiated in these fragments because they are smaller in size than the minimum region request for a user task.

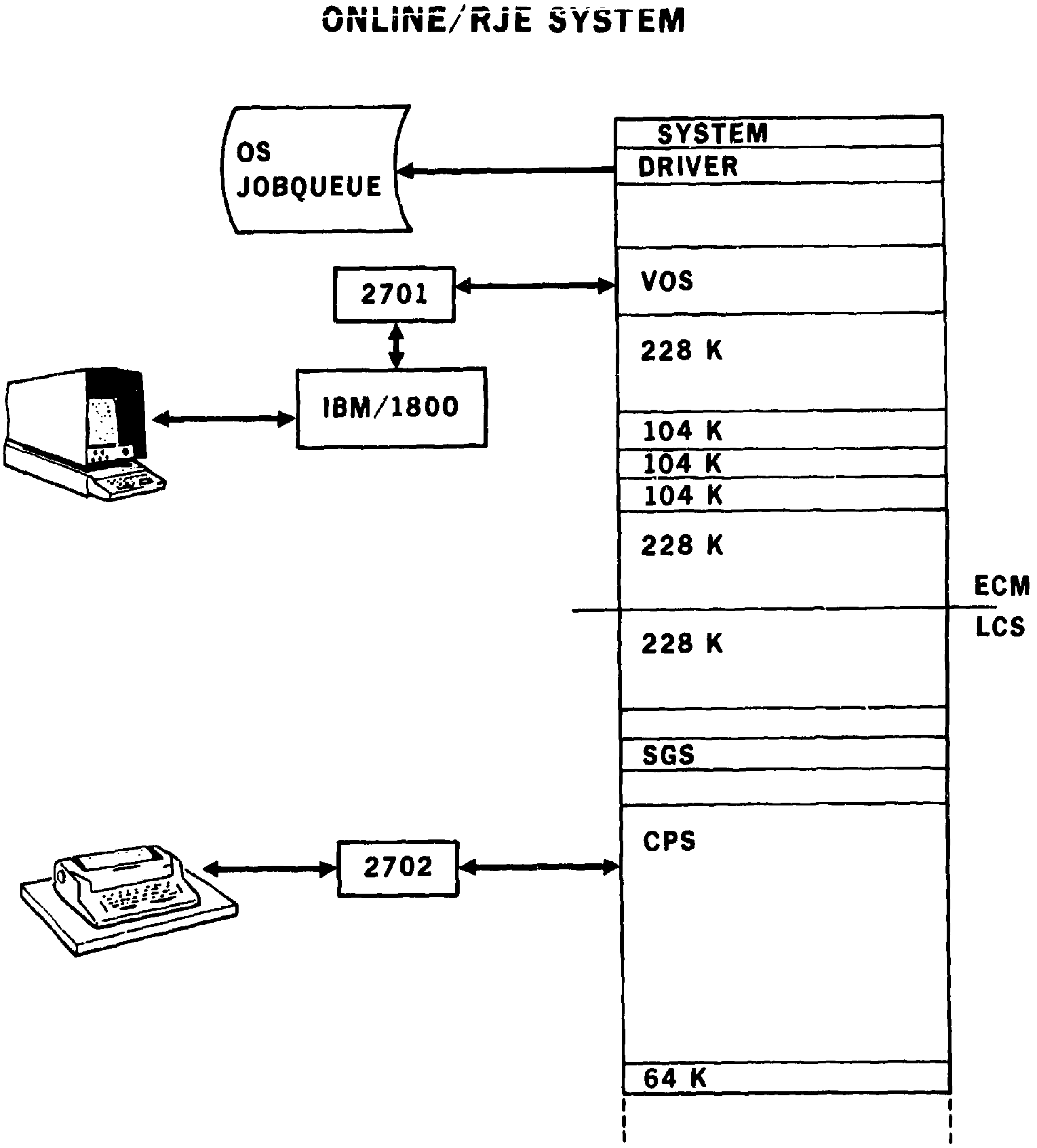


Fig. III-6--On-Line/RJE System

IV. IMPLEMENTATION OF THE FIXED INITIATOR

The facility for managing on-line storage in a multiprogramming environment had the requirement of easy implementation. This is expanded below in the Externals; the OS modifications necessary for implementation are expanded in the Internals.

EXTERNALS

The implementation of the Fixed Initiator modification is relatively straightforward. The Procedure names for the Initiator to be Fixed must start with a common alpha; we chose F for fixed. The region parameter on the execute statement for these initiators specify the fixed region required by the initiator. The set-up for the normal memory configuration takes about 20 minutes for a Warm Start. Fig. IV-1 illustrates the sequence of commands currently required to configure the system. These commands are executed via a reader procedure which points to the command data set as its input stream.

INTERNALS

The modifications for Fixed Initiators have changed since Release 17. The Initiator modules have been rewritten and Fixed Initiators now require modifications to four modules in LINKLIB. This represents less than 400 bytes of nonresident code in these four modules.

In what follows, attention is called to IBM's practice of identical naming of load modules and control sections (CSECTs). Beware of confusing the two. Microfiche names appear on the accompanying charts, as do load module names. Note that CSECT names are *not* represented on Figs. IV-2 or IV-3 (pp. 21-22).

I. Standard Initiation - MVT

The initiation task in an MVT environment has several steady-state conditions. Currently, at Rand, the conditions possible are:

a. Waiting for work—in this case the initiation procedure is represented by one load module in the link pack area. None of available core storage is assigned to the initiation task.

FIGURE IV-1

STANDARD WARMSTART

COREMAP IMAGE	
MASTER SCHEDULER	80A
IPL (DRIVER)	22A
COREMAP	16A
LOVE	16A
FVOS	122A
FNIH	228A
FHG104	104A
F2HG104	104A
FGH104	104A
FJ228	228A
Ampex LCS/Boundary	
WTRE	20L
FF228	228L
WTRB	20L
FSGS	52L
WTRD	20L
FCPS	596L
TWRITER	24L
FM64	64L
LCS Boundary	
FREE CORE	342H
SQS & NUCLEUS	170H
NORMAL	WAITING
SLOPPY	WAITING
SLOW	WAITING
SPEEDY	WAITING

"IPL" READER COMMANDS*		
H	Q	10
D	JOBNAMES,T	20
S	COREMAP	30
S	LOVE	40
S	FVOS	50
S	FNIH	60
S	FHG104	70
S	F2HG104	80
S	FGH104	90
S	FJ228	110
S	WTRE	120
S	FF228	130
S	WTRB	140
S	FSGS	150
S	WTRD	160
S	FCPS	170
S	TWRITER	185
S	FM64	190
S	ONLINE	200
S	NORMAL	230
S	SLOPPY	240
S	SLOW	250
S	SPEEDY	260
D	A	270

*This sequence of commands is activated by the operator issued command:

S IPL

b. Job/step initiation processing--in this case the initiator is represented by several load modules. Some of these reside in, and are executed from, the link pack area. The others must be furnished with a region of available core storage. This allocation of core is carried out dynamically, under standard region management conventions. That is, the region is freed when the initiator modules relinquish control (e.g., to the task being initiated).

c. Limbo--a name for the situation in which a user job step has been attached by the initiator. In this case the initiator is represented by a load module in the link pack area which will receive control when the job step terminates. The initiator proper has no dynamic storage assigned it at this time; but, the attached job step is running in a region obtained for it by the initiator prior to the attach.

d. Job/step termination processing--this condition is similar to (b), above. When termination processing is complete the dynamically allocated core assigned to initiator load modules is released and the situation reverts to condition (a) or (b), above.

II. Fixed Initiation - MVT

An IBM Installation Newsletter, issued while Rand was on Release 17 of MVT, outlined what seemed a relatively easy way to obtain for MVT some of the benefits of the fixed partition system of MFT. Specifically, the modification involved changes to the steady-state conditions described above. Instead of releasing the region assigned to the initiator load modules when the initiator is waiting for work, or has attached a user job step, the region is kept fixed in core. Setting the region size requested in the initiator procedures to appropriate values enables the system to more efficiently manage our complex mixture of permanently resident on-line systems and transient batch job processing.

III. Implementation of Fixed Initiation

a. For Release 17 of MVT--Implementation involved changes to only two control sections within one load module, IEFSD061. The single further requirement is that the procedure names for the fixed initiators begin with the letter F (e.g., FGH104, FF228). Changes to control sections are described as follows:

1. CSECT IEFSD061: Code was inserted to test for a fixed initiator. If yes, and the initiator must wait for work, the wait is performed in-line *instead of* transferring control to load module IEFSD105 which normally frees the initiator's region, and then issues the wait from the link pack area.

2. CSECT IEFSD062: Code was inserted to test for a fixed initiator. If yes, and the job step being processed requires enqueuing on data sets, enqueuing is performed in-line. If yes, and no enqueuing is required, the in-line enqueue is bypassed. In either case, control then passes directly to the allocation interface module IEFSD062 *instead of* transferring control to module IEFSD102 which normally performs a region swap, in addition to checking for the need to enqueue on data sets.

With the exception of the above changes for initiators whose names begin with F, job step initiation proceeds in the standard manner. Figure III-2 (for Release 17) summarizes where the changes are located with respect to the entire procedure.

b. For Release 19 of MVT--implementation was complicated by several rather basic changes to the job/step initiating procedure. In Release 19 some parts of the system task control routine were merged into the initiator. A more detailed explanation of these changes may be found in the MVT JOB MANAGEMENT PLM (GY28-6660). These modifications required a reworking of the system changes which would allow fixed initiation. The following text identifies, by CSECT within load module, the changes necessary to allow fixed initiation with Release 19.

1. Load Module IEFSD061

o CSECT IEFSD062--this module retained the changes necessary under Release 17. Code was added to implement a "first time through" flag. This procedure allows a starting fixed initiator to obtain its core through a standard region swap in module IEFSD102. After this "first time through" the flag allows a fixed initiator no further access to module IEFSD102.

o CSECT IEFSD061--this module retained the changes necessary under Release 17. Code was added to remotely reset the flag in CSECT IEFSD062 whenever load module IEFSD061 was loaded via an XCTL from modules IEFSD060 or IEFSD062.

o CSECT IEFSD104--code was added to remotely reset the flag in CSECT IEFSD062 whenever load module IEFSD061 was loaded via an XCTL from module IEFSD263.

o CSECT IEFW42SD--code was added to remotely reset the flag in CSECT IEFSD062 whenever load module IEFSD061 was loaded via an XCTL to entry points IEFW42SD or IEEV4221 within the block labeled "TERMINATION" (see Fig. IV-3).

- o CSECT IEFSD065—code was added to remotely reset the flag in CSECT IEFSD062 whenever load module IEFSD061 was loaded via an XCTL from module IEFSD062.

2. Load Module IEFSDC62

   - o CSECT IEFSD062—code was added to test for a fixed initiator. (As before, the fixed initiator's jobname must begin with F.) If yes, a branch is enabled which causes the region of core containing the Getpart Work Table (GWT) to be released. The absence of GWT is used in subsequent code as an indication that a region swap at attach-time is not desired.

3. Load Module IEFSD263

   - o CSECT IEFSD263--code was added to test for a fixed initiator. If yes, code is bypassed which normally swaps regions just prior to job step attachment. Another fixed initiator test later in this CSECT prevents a region swap upon return to this CSECT when the attached job step gives up control.

Figure IV-3 (for Release 19) summarizes the above modifications, and locates them within the initiator control flow.

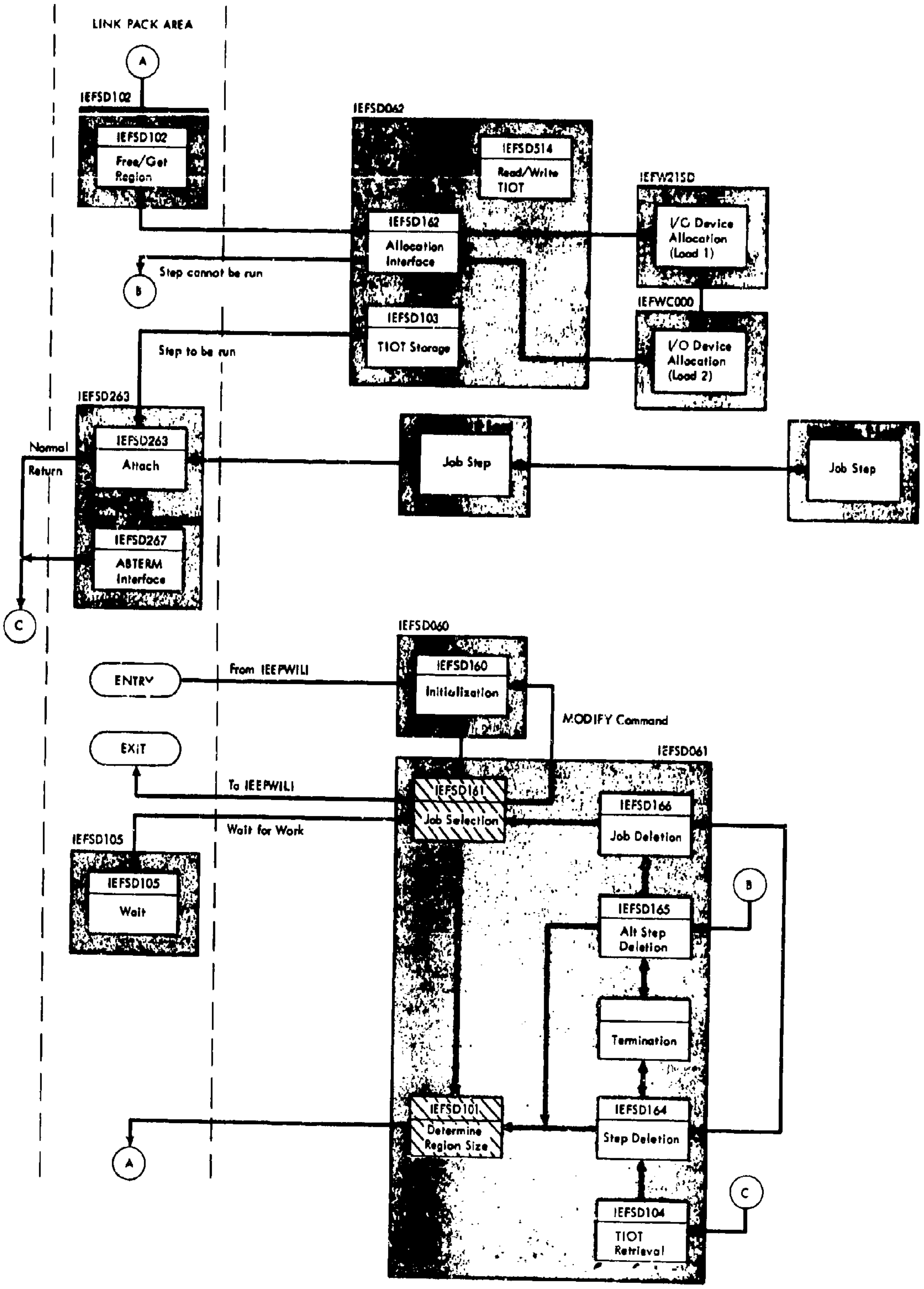
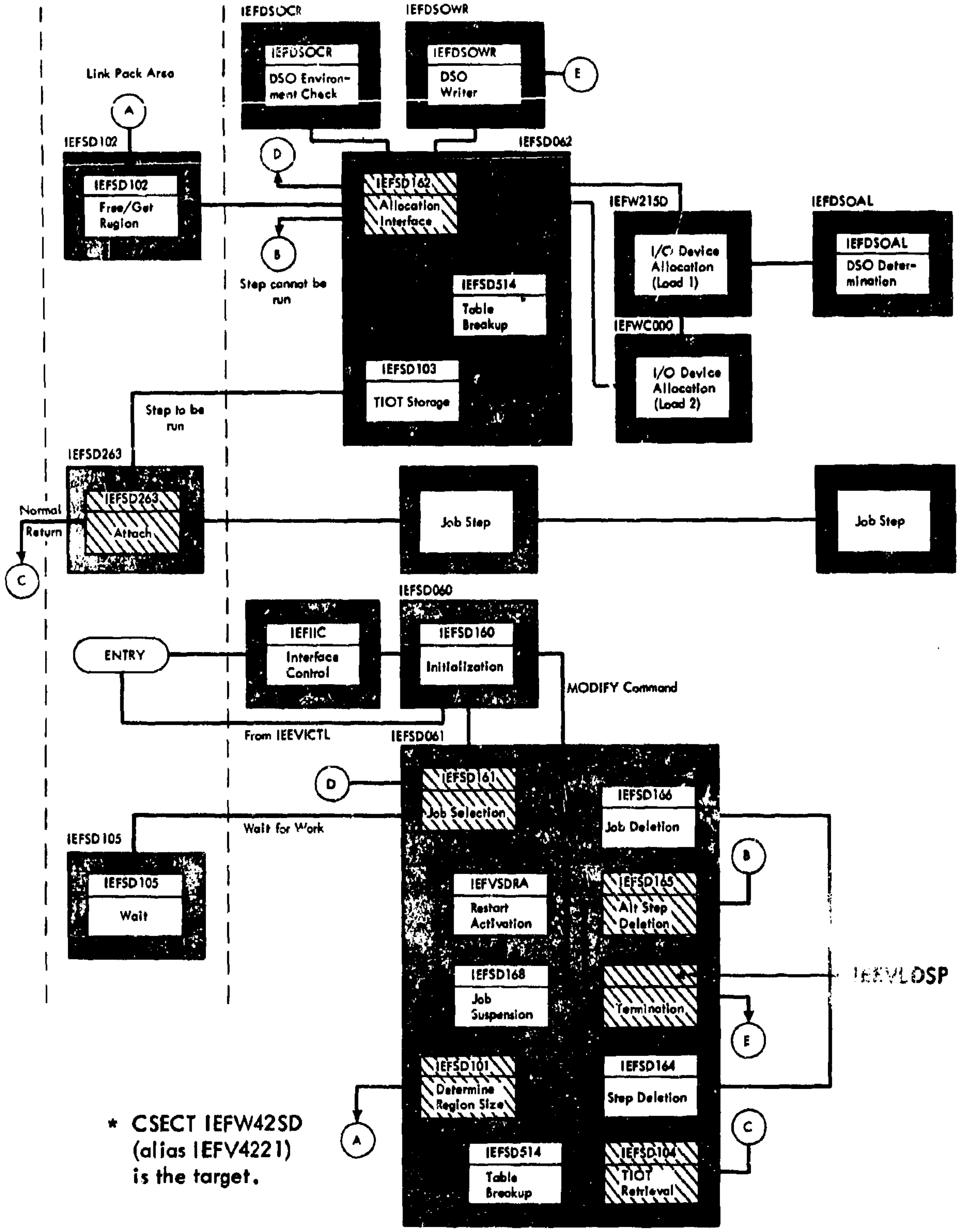


Fig. IV-2--Release 17



* CSECT IEFW42SD (alias IEFV4221) is the target.

Fig. IV-3--Release 19

V. CONCLUSION

The Fixed Initiator facility is a stable and reliable modification to the MVT system at Rand, which has accomplished our objectives and exceeded our expectations. Fixed Initiators can reserve storage for on-line systems, reserve storage for guaranteed access applications, and protect the batch processing from accidental execution in slower-speed storage. As a facility for memory management it has reduced the problems associated with controlling three access speeds of memory.

APPENDIX

The following listings reflect the control sections which have been modified in order to implement fixed initiation on OS/MVT Release 19.3. The patches are enclosed by rectangles.

```
         TITLE 'IEFSD101-MS/1 PARTITION REPLACE INTERFACE'              00020000
IEFSD062 CSECT                                                          00040000
*                                                                 M4176 00042019
*2833 013800                                                      20768 00045018
*6092                                                              1500 00050014
*015361-015396,015700-016960,022200                                1272 00055019
         BALR  R12,0                                                    00060000
*                                                                     * 00080000
*********************************************************************** 00100000
*                                                                     * 00120000
*         IEFSD101-MS/1 PARTITION REPLACE INTERFACE                   * 00140000
*                                                                     * 00160000
*********************************************************************** 00180000
*                                                                     * 00200000
* STATUS - CHANGE LEVEL 000                                           * 00220000
*                                                                     * 00240000
* FUNTION  TO DETERMIN THE PARTITION SIZES NEEDED FOR ALLOCATION   1272 00250019
*          FOR THE JOB STEP AND FOR TERRMINATION.                  1272 00260019
*                                                                     * 00280000
* ENTRY POINT: IEFSD062 FROM IEFSD161 AND IEFSD164 AND IEFSD166       * 00300000
*                                                                     * 00320000
*  INPUT:  REGISTER ONE CONTAINS THE LCT ADDRESS                      * 00340000
*                                                                     * 00360000
* OUTPUT: LCTPARM3 IN LCT CONTAINS SUBPOOL NO. AND PARTITION SIZE     * 00380000
*                                                                     * 00400000
* EXTERNAL REFERENCES - ABSOLUTE LOCATION 16 IS USED TO  PICK UP THE  * 00420000
*   ADDRESS OF THE CVT.                                               * 00440000
*                                                                     * 00460000
* EXIT: IEFSD102 - PARTITION REPLACE MODULE                           * 00480000
*                                                                     * 00500000
* TABLES/WORKAREAS - LCT, SCT, MASTER SCHEDULER RESIDENT CORE AREA    * 00520000
*                                                                     * 00540000
* ATTRIBUTES - REENTRANT                                              * 00560000
*                                                                     * 00580000
*********************************************************************** 00600000
*                                                                     * 00620000
         USING *,R12                                                    00640000
         USING  IEFLOT,R10                                              00660000
         USING IEFSCT,R9                                                00680000
         EJECT                                                          00700000
*********************************************************************** 00720000
*                                                                     * 00740000
* THE FOLLOWING SECTION OF CODE SERVES ONLY TO IDENTIFY THIS MODULE   * 00760000
* IN A MEMORY DUMP                                                    * 00780000
*                                                                     * 00800000
         B     FIRST                                                  * 00820000
         DC    X'CCCC'                                                * 00840000
         DC    C'IEFSD101'                                            * 00860000
         DC    X'06081966'                                            * 00880000
         DC    X'CCCC'                                                * 00900000
FIRST    DS    0H                                                     * 00920000
*                                                                     * 00940000
*********************************************************************** 00960000
         EJECT                                                          00980000
         LR    R10,R1                    LCT ADDRESS                    01000000
         LR    R4,R13                                              SMF1 01002018
         GETMAIN R,LV=72                                           SMF1 01004018
         LR    R13,R1                                               SMF1 01006018
         USING CVTDSECT,R1          CVT ADDRESSABILITY             M3849 01006219
         L     R1,CVTPTR            ADDRESS OF CVT PTR             M3849 01006419
         L     R1,CVTTCBP           GET TCB PTRS                   M3849 01006619
         DROP  R1                                                  M3849 01006819
         L     R1,04(R1)            GET OUR TCB FOR SMF & ALLOC    M3849 01007019
         ST    R1,LCTTCBAD          PUT OUR TCB ADDR IN LCT        M3849 01007219
         LR    R1,R10                                               SMF1 01008018
         L     R15,VCONSMF              GO TO SMF INIT EXIT         SMF1 01010018
         BALR  R14,R15                  PASS LCT IN R1              SMF1 01012018
         FREEMAIN R,LV=72,A=(R13)                                   SMF1 01014018
         LR    R13,R4                                               SMF1 01016018
         L     R2,OMCAP                 LOAD PTR TO TRACK STACK INFO     01020000
         L     R2,0(R2)                 LOAD PTR TO STACK                01040000
         LA    R2,0(R2)                 GET RID OFUPPER BYTE             01060000
         LTR   R2,R2                    IF ADDR IS ZERO, NO STACK- SO    01080000
         BC    8,SD101005               BRANCH AROUND                    01100000
         LR    R5,R13                   ADDR IS NOT ZERO - SAVE REG      01120000
         LR    R13,R2                   POINT TO SAVE AREA IN STACK      01140000
         LA    R1,OMGR1                 LOAD PTR TO OMPA                 01160000
         XC    OMPOP(1),OMPOP           CLEAR OP CODE  FOR PURGE RTN     01180000
*                                        NOT TO CONFUSE IT WITH DELETE   01200000
         L     R15,IFFSDSTP             ADDR OF STACK PURGE PGM          01220000
         BALR  R14,R15                  GO TO PURGE AND FREE THE STACK   01240000
         LR    R7,R15                   SAVE THE RETURN CODE             01260000
         LR    R1,R13                   LOAD PTR OF RETURNED SAVE AREA   01280000
         FREEMAIN R,LV=72,A=(1)          AND FREE IT                     01300000
         LR    R13,R5                   RESTORE REGISTER                 01320000
         LTR   R7,R7                    TEST RETURN CODE -- IF IT 0,     01340000
         BC    8,SD101005               RETURN WAS NORMAL, BRANCH        01360000
         LA    R1,X'0B0'                I/O ERROR IN TRACK         20768 01370018
         SLA   R1,12                    STACKING                   20768 01380018
         ABEND (R1),DUMP                OBO ABEND                  20768 01390018
SD101005 EQU   *                                                         01400000
         XC    LCTINTSW(D1),LCTINTSW  ZERO INTERNAL SWITCHES        I272 01410019
         L     R9,LCTSCTAD               GET SCT ADDRESS                 01420000
         L     R4,16                LOAD CVT ADDR                        01460000
         USING CVTDSECT,R4                                               01480000
         L     R5,CVTMSER           LOAD MASTER RES CORE ADDR            01500000
         USING BASE,R5                                                   01520000
         LH    R7,BAMINPAR           LOAD MINIMUM PARTITION SIZE         01520717
         DROP  R4                                                        01521417
         L     R4,LCTJCTAD           LOAD JCT ADDRESS                    01522117
         USING JCT,R4                                                    01522817
         TM    JCTJSTAT,JCTABEND     HAS ABEND OCCURED WHICH MIGHT       01523517
*                                     ALLOW A FOLLOWING STEP TO          01524217
*                                     EXECUTE                            01524917
         BZ    SD101006              NO, GO TEST JOB FAIL AND JOB        01525617
*                                     FLUSH BITS                         01526317
         TM    SCTABCND,SCTEVEN+SCTONLY                                  01527017
*                                    YES, IS THIS STEP TO RUN AFTER      01527717
*                                     THE ABEND                          01528417
         BZ    SD101007              NO, GO SET UP FOR MINPART           01529117
         CLI   SCTABCND+2,0          WERE EIGHT CONDITIONS PRESENT       01529817
*                                     FOR THIS STEP                      01530517
         BNE   SD101007              YES, NOT EVEN/ONLY, GO SET UP       01531217
*                                     TO GET MINPART                     01531917
```

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         B     SD101008             THIS STEP WILL BE EXECUTED- GO         01532617
*                                    GET REQUESTED REGION                  01533317
SD101006 EQU   *                                                           01534017
         TM    JCTJSTAT,X'44'       IS JOB FAIL OR FLUSH BIT ON       CR17 01534717
         BZ    SD101008             NO, GO GET REQUESTED REGION            01535417
SD101007 OI    LCTINTSW,LCTMINRG    JOB FAIL INDICATE MINPAR          I272 01536419
         XC    SCTMSADR(D8),SCTMSADR  ZERO ADDRESSES                  I272 01537419
SD101008 EQU   *                                                           01540317
*  THIS  ROUTINE BUILDS THE GETPART WORK TABLE.THIS TABLE IS TO BE LS17 01543017
*  USED AS A PARAMETER LIST FOR LIST FORM OF GETMAIN TO OBTAIN A      LS17 01546017
*  REGION                                                             LS17 01549017
         LA    R0,GPMINPAR+4-GETPTWT LOAD LENGTH OF GWT               LS17 01552017
         LA    R8,TCORE             GET CORE FROM SUPERVISOR CORE     LS17 01555017
         SLL   R8,24                                                  LS17 01558017
         OR    R0,R8                PLACE SUBPOOL + LENGTH IN R0      LS17 01561017
         GETMAIN R,LV=(0)           GET CORE FOR GETPART WK TBLE      LS17 01564017
         LR    R8,R1                                                  LS17 01567017
         USING GETPTWT,R8                                             LS17 01570017
         MVC   GPADDHO(8),SCTMSADR MOVE HIERARCHY ADDRESSES INTO      CR17 01573017
*                                           WORK TABLE                CR17 01576017
         SLL   R7,M10               MULTIPLY BY 1024                  I272 01577019
         MVI   GPCODE,UNCONDGM                                        I272 01578019
         MVI   GPSUBP,POOL247        INDICATE SUBPOOL 247             I272 01579019
         ST    R7,GPMINPAR           SET UP FOR REGISTER FORM         I272 01580019
         MVI   GPMINPAR,POOL247      OF GETPART IF ERROR              I272 01581019
         MVC   GPADDHOR(D4),GPADDHO  SAVE ORIGINAL ADDRESS            I272 01582019
         LH    R11,SCTMSSZE         HO SIZE FROM SCT                  I272 01583019
         SLL   R11,M10              MULTIPLY BY 1024                  I272 01584019
         ST    R11,GPSIZEHO         SIZE INTO GWT                     I272 01585019
         LH    R3,SCTLCSSZ          H1 SIZE FROM SCT                  I272 01586019
         SLL   R3,M10               MULTIPLY BY 1024                  I272 01587019
         ST    R3,GPSIZEH1          SIZE INTO GWT                     I272 01588019
         MVI   GPSIZEH1,ENDLIST      INDICATE END OF LIST             I272 01589019
         TM    LCTOPSW2,LCTINTHO     TEST FOR HIER ZERO               I272 01590019
         BO    SD10110               BRANCH IF HIER ZERO              I272 01591019
         TM    LCTOPSW2,LCTINTH1     TEST FOR HIER ONE                I272 01592019
         BZ    SD10109               BRANCH NOT HIER ONE              I272 01593019
         OI    LCTINTSW,LCTIHIER     INIT RUN IN HIER ONE             I272 01594019
         AR    R3,R11               ADD REGION REQUESTS               I272 01595019
         ST    R3,GPSIZEH1          STORE IN H1 SIZE                  I272 01596019
         MVI   GPSIZEH1,ENDLIST     INDICATE END OF LIST              I272 01597019
         XC    GPSIZEHO(D4),GPSIZEHO  ZERO HO SIZE                    I272 01598019
         B     SD10113                                                I272 01599019
SD10109  LTR   R11,R11               TEST FOR HO SIZE                 I272 01600019
         BNE   SD101105                                               I272 01601019
         LTR   R3,R3                 TEST FOR  HIER ONE               I272 01602019
         BE    SD101105             BRANCH DEFAULT TO ZERO            I272 01603019
         OI    LCTINTSW,LCTIHIER     INIT RUN IN HIER ONE             I272 01604019
         B     SD10113                                                I272 01605019
SD10110  AR    R11,R3               ADD REGION REQUESTS               I272 01606019
         ST    R11,GPSIZEHO         STORE IN HO SIZE                  I272 01607019
         XC    GPSIZEH1(D4),GPSIZEH1    ZERO H1 SIZE                  I272 01608019
         SR    R3,R3                ZERO H1 SIZE IN REGISTER          I272 01609019
SD101105 LA    R14,GPADDHO          SET UP PTR TO ADDRESS             I272 01610019
         ST    R14,GPADDLT          LIST OF HIERARCHIES               I272 01611019
         LA    R14,GPSIZEHO         SET UP PTR TO REGION              I272 01612019
         ST    R14,GPSIZEA          SIZE LIST OF HIERARCHIES          I272 01613019
         LTR   R3,R3                TEST FOR HIER ONE                  1272 01614019
         BNE   SD10114              BRANCH IF THERE IS H1              1272 01615019
         MVI   GPSIZEH0,ENDLIST   SET H0 SIZE AS END OF LIST           1272 01616019
         B     SD10114                                                 1272 01617019
SD10113  LA    R14,GPADDH1        SET UP PTR TO ADDRESS LIST           1272 01618019
         ST    R14,GPADDLT        FOR HIERARCHY ONE                    1272 01619019
         LA    R14,GPSIZEH1       SET UP PTR TO REGION SIZE            1272 01620019
         ST    R14,GPSIZEA        STORE PTR                            1272 01621019
         CLR   R3,R7              COMPARE REQUEST WITH MINPAR          1272 01622019
         BNL   SD10124            BRANCH REQUEST GREATER               1272 01623019
         MVC   GPSIZEH1+D1(D3),GPMINPAR+D1  MOVE IN MINPAR SIZE        1272 01624019
         LR    R6,R3                REQUEST SIZE IN R6                 1272 01625019
         B     SD10115                                                 1272 01626019
SD10114  CLR   R11,R7               COMPARE REQUEST WITH MINPAR        1272 01627019
         BNL   SD10124            BRANCH REQUEST GREATER               1272 01628019
         MVC   GPSIZEH0+D1(D3),GPMINPAR+D1  MOVE IN MINPAR SIZE        1272 01629019
         LR    R6,R11             REQUEST IN R6                        1272 01630019
SD10115  TM    LCTINTSW,LCTMINRG    TEST FOR JOB FAIL                  1272 01631019
         BZ    SD10116              BRANCH JOB NOT FAILED              1272 01632019
SD101155 TM    LCTINTSW,LCTIHIER  TEST FOR HIERARCHY                   1272 01633019
         BZ    SD101165             BRANCH HIERARCHY ZERO              1272 01634019
         NC    GPSIZEH0(D4),GPSIZEH0  ZERO HIERARCHY ZERO SIZE         1272 01635019
         MVC   GPSIZEH1+D1(D3),GPMINPAR+D1  MOVE MINPAR SIZE           1272 01636019
         B     SD10125                                                 1272 01637019
SD101165 XC    GPSIZEH1(D4),GPSIZEH1  ZERO H1 SIZE                     1272 01638019
         MVI   GPSIZEH0,ENDLIST     INDICATE END OF LIST               1272 01639019
         MVC   GPSIZEH0+D1(D3),GPMINPAR+D1  MOVE IN MINPAR SIZE        1272 01640019
         B     SD10125                                                 1272 01641019
SD10116  OC    BAMIPAR2(D2),BAMIPAR2  IS TERM IN LPA                   1272 01642019
         BE    SD10120              BRANCH NOT IN LPA                  1272 01643019
         TM    LCTINTSW,LCTIHIER  INIT IN HIERARCHY ONE                1272 01644019
         BO    SD101166           BRANCH HIERARCHY ONE                 1272 01645019
         OC    GPADDH0+D1(D3),GPADDH0+D1  SPECIFIC REQUEST             1272 01646019
         BE    SD10117            BRANCH NOT SPECIFIC                  1272 01647019
         SR    R7,R11             R7=(MINPAR-S)                        1272 01648019
         L     R2,GPADDH0         GET REQUESTED ADDRESS                1272 01649019
         SR    R2,R7              R2=A-(MINPAR-S)                      1272 01650019
         ST    R2,GPADDH0         NEW ADDRESS IN PARM                  1272 01651019
         B     SD10117                                                 1272 01652019
SD101166 OC    GPADDH1+D1(D3),GPADDH1+D1  SPECIFIC REQUEST             1272 01653019
         BE    SD10117            BRANCH NOT SPECIFIC                  1272 01654019
         SR    R7,R3              R7=(MINPAR-S)                        1272 01655019
         L     R2,GPADDH1         GET REQUESTED ADDRESS                1272 01656019
         LA    R2,0(R2)           CLEAR HIGH ORDER BYTE                1272 01657019
         SR    R2,R7              R2=(A-(MINPAR-S)                     1272 01658019
         ST    R2,GPADDH1         NEW ADDRESS IN PARM                  1272 01659019
         MVI   GPADDH1,HEX01      INDICATE HIERARCHY ONE               1272 01660019
SD10117  LH    R7,BAMIPAR2        LOAD MIN-MIN SIZE                    1272 01660519
         SLL   R7,M10             MULTIPLY BY 1024                     1272 01661019
         CLR   R6,R7              IS REQUEST GREATER THEN MIN-MIN      1272 01661519
         BNH   SD10118              BRANCH MIN-MINPAR GREATER          1272 01662019
         ST    R6,GPSIZEPP          USE REQUEST FOR P/P                1272 01663019
         B     SD10126                                                 1272 01664019
SD10118  EQU   *                                                       1272 01665019
         TM    LCTOPSW1,LCTMINPF    SMALL REGION FLAG                  1272 01667019
         BO    SD10119              BRANCH NO SMALL REGION             1272 01668019
         ST    R7,GPSIZEPP          USE MIN-MINPAR FOR P/P             1272 01669019
         B     SD10126                                           I272 01670019
SD10119  ST    R6,GPSIZEPP           USE REQUEST FOR P/P         I272 01671019
         ST    R7,GPSIZET            USE MIN-MINPAR FOR TERM     I272 01672019
         B     SD10127                                           I272 01673019
SD10120  TM    LCTOPSW1,LCTMINPF     SMALL PARTITION OPTION      I272 01674019
         BZ    SD10125               BRANCH NO                   I272 01675019
         ST    R6,GPSIZEPP           USE REQUEST FOR P/P         I272 01676019
         ST    R7,GPSIZET            USE MIN/MINPAR FOR TERM     I272 01677019
         B     SD10127                                           I272 01678019
SD10124  TM    LCTINTSW,LCTMINRG   TEST FOR JOB FAIL             I272 01679019
         BO    SD101155            BRANCH IF JOB FAILED          I272 01680019
SD10125  XC    GPSIZEPP(D4),GPSIZEPP                             I272 01681019
SD10126  XC    GPSIZET(D4),GPSIZET ZERO TERMINATE SIZE           I272 01682019
SD10127  EQU   *                                                 I272 01683019
SD101C4  LA    R8,0(R8)                ZERO HIGH ORDER BYTE      LS17 01699017
         ST    R8,LCTPARM3             GETMAIN PARAM FOR IEFSD102  LS17 01702017
         L     R1,LCTQDRTY         ADDRESS OF CSCB              M4176 01702619
         USING IEFCSCB,R1                                       M4176 01703219
         TM    CHSWT,CHSYS         IS THIS A SYSTEM TASK        M4176 01703819
         BO    SKIPCHAP            BRANCH SYSTEM TASK - SKIP CHAP  M4176 01704419
         DROP  R1                                               M4176 01705019
         SR    R1,R1                 CLEAR REGISTER              I241 01706018
         LA    R0,15                 PUT 15 IN REG               I241 01710018
         IC    R1,LCTQDRTY           LOAD JOB SCHEDULING PRIORITY  I241 01714018
         SR    R0,R1                 GET 15-PRTY                 I241 01718018
         LNR   R0,R0                 NEGATE REGISTER             I241 01722018
         SR    R1,R1                 CLEAR REGISTER              I241 01726018
         CHAP  (0),(1)               CHAP DOWN BY 15-PRTY        I241 01730018
SKIPCHAP EQU   *                                                M4176 01735019
         LR    R1,R10                  RESTORE LCT ADDRESS            01740000
         L     15,16            MOTHER CVT                               0120
         L     15,0(0,15)       DOUBLEWORD                               0121
         L     15,4(0,15)       THE TCB                                  0122
         L     15,12(0,15)      OUT TIOT                                 0123
         CLI   0(15),C'F'       FIXED PARTITION?                         0124
         BNE   NORMAL           NO - PROCEED NORMALLY                    0125
         CLI   FTTF,X'FF'           CHECK FIRST TIME THRU FLAG.
         BE    HITIT                ALLOW FIXED INITIATION.
         MVI   FTTF,X'FF'           SET FTTF TO ALLOW  FI NEXT TIME.
         B     NORMAL               LET IT GO THIS TIME.
FTTF     DC    X'00'                FIRST TIME THRU FLAG.
HITIT    L     R1,LCTPARM1          GET DS ENQ TABLE.
         LTR   R1,R1            IS IT ZERO?                              0127
         BZ    LACTATE          YEAH                                     0128
         LA    R1,8(0,R1)       ENQ ON THE                               0129
         SVC   56               JOB'S DATASETS                           0130
         L     R0,LCTPARM2      FREE UP DS ENQ                           0131
         L     R1,LCTPARM1      TABLE CORE                               0132
         SVC   10               ........                                 0133
LACTATE  LR    R1,R10           RESTORE LCT POINTER                      0134
         XCTL  EP=IEFSD062      GO TO MEMBER IEFSD062                    0135
NORMAL   DS    0H                                                        0136
         XCTL  EP=IEFSD102,MF=(E,(1))                                 01760000
IEFSDSTP DC    V(IEFSD112)         ADDR OF TRACK STACK PURGE PGM      01780000
VCONSMF  DC    V(IEFSMFIE)                 *                     SMF1 01790018
R0       EQU   0                                                      01800000
R1       EQU   1                                                      01820000
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R2       EQU   2                                                         01840000
R3       EQU   3                                                         01860000
R4       EQU   4                                                         01880000
R5       EQU   5                                                         01900000
R6       EQU   6                                                         01920000
R7       EQU   7                                                         01940000
R8       EQU   8                                                         01960000
R9       EQU   9                                                         01980000
R10      EQU   10                                                        02000000
R11      EQU   11                                                        02020000
R12      EQU   12                                                        02040000
R13      EQU   13                                                        02060000
R14      EQU   14                                                        02080000
R15      EQU   15                                                        02100000
TCORE    EQU   253                                                  LS17 02110017
CVTDSECT DSECT                                                           02120000
UNCONDGM EQU   X'80'                                                I272 02121019
M10      EQU   10                                                   I272 02122019
ENDLIST  EQU   X'80'                                                I272 02123019
D1       EQU   1                                                    I272 02124019
D2       EQU   2                                                    I272 02125019
D3       EQU   3                                                    I272 02126019
D4       EQU   4                                                    I272 02127019
D8       EQU   8                                                    I272 02128019
POOL247  EQU   247                                                  I272 02129019
HEX01    EQU   X'01'                                                I272 02130019
         CVT                                                             02140000
  IEEBASEA
IEFLOT   DSECT                                                           02180000
 IEFALLCT                                                                02200000
         DS    3F                                                   I272 02204019
LCTINTSW DS    0C                   INITIATOR INTERNAL SWITCHES     I272 02208019
LCTIHIER EQU   128                                                  I272 02212019
LCTSTOP  EQU   4                    INITIATOR INTERNAL STOP         I272 02216019
LCTABEND EQU   2                    P/P ABBENDED                    I272 02220019
LCTMINRG EQU   16                                                   I272 02224019
LCTSPLP  DS    F                                                         02228019
         DS    42F                                                  I272 02232019
QMGR1    DS    9F                       MAIN QMGR PARAMETER AREA         02240000
QMGR2    DS    9F                       'ALTERNATE' QMGR PARAMETER AREA  02260000
TRSTKINF DS    2F                 NEEDED FOR TRACK STACKING AND QUEUE    02280000
*                                 BREAK INFORMATION. 1ST BYTE TO CON-    02300000
*                                 TAIN  NUMBER OF BUFFERS, NEXT 3 BYTES  02320000
*                                 FOR STACK ADDR, NEXT 4 BYTES FOR       02340000
*                                 QUEUE BREAK INFORMATION                02360000
QMCAP    EQU   QMGR1+24           PTR IN QMPA TO TRK STACK INFO          02380000
QMPOP    EQU   QMGR1+8            QMGR OP CODE IN QMPA AREA              02400000
         DS    6F                                                   I272 02400219
*   THESE FIELDS ARE NEEDED FOR L-SHAPE/INIT MERGE               *  I272 02400419
LCTOPSW1 DS    0C                   INITIATOR OPTIONS BYTE 1        I272 02400619
LCTPKEYF EQU   128                  DONT GET PROTECT KEY            I272 02400819
LCTDWFF  EQU   64                   DONT PROCESS DEDICATED WORKF    I272 02401019
LCTSTMDF EQU   32                   DONT PROCESS STOP/MODIFY        I272 02401219
LCTMINPF EQU   16                   GET REGION SIZE SPECIFIED       I272 02401419
LCTCANF  EQU   8                    ALLOW CANCEL ONLY AT ALLOC      I272 02401619
LCTONEJF EQU   4                    PROCESS ONLY ONE JOB            I272 02401819
LCTICMDF EQU   2                    DONT PROCESS INITIATOR CMDS     I272 02402019
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LCTEXIT  DS    F                     ADDRESS INITIATOR EXIT LIST     I272 02402219
LCTOPSW2 DS    0C                    INITIATOR OPTIONS BYTE 2        I272.02402419
LCTTIMEF EQU   128                   DONT TIME THIS JOB              I272 02402619
LCTCRF   EQU   64                    DONT ALLOW CHECKPT/RESTART      I272 02402819
LCTDSOF  EQU   32                    DONT PROCESS DSO                I272 02403019
LCTINTH0 EQU   16                   H0 SPECIFIED ON START COMMAND    I272 02403219
LCTINTH1 EQU   8                    H1 SPECIFIED ON START COMMAND    I272 02403419
LCTCOM   DS    F                     COMMUNICATIONS PARM AREA PTR    I272 02403619
         EJECT                                                            02404017
JCT      DSECT                                                            02408017
         IEFAJCTB                                                         02412017
         EJECT                                                            02413019
IEFCSCB  DSECT                                                            02414019
         IEECHAIN                                                         02415019
         EJECT                                                            02416017
IEFSCT   DSECT                                                            02420000
 IEFASCTB                                                                 02440000
GETPTWT  DSECT                                                            02441017
GPSIZEA  DS    1F          CONTAIN THE ADDRESS OF THE REGION SIZE LI LS17 02442017
GPADDLT  DS    1F          CONTAIN THE ADDR OF ADDR LIST FOR THE HIE LS17 02443017
GPCODE   DS    X'0'        CONTAIN 80 TO INDICATE UNCONDITIONAL REGU LS17 02444017
GPSUBP   DS    X'0'        CONTAIN SUBPOOL 247 OR 246                LS17 02445017
         DS    H'0'                                                  LS17 02446017
GPHIARC0 DS    0F          CONTAINS  00                              LS17 02447017
GPADDH0  DS    1F          CONTAINS ADDRESS(SPECIFIC) ,ZERO(NON-SPEC LS17 02448017
GPHIARC1 DS    0F          CONTAINS  01                              LS17 02449017
GPADDH1  DS    1F          CONTAINS ADDRESS(SPECIFIC) ,ZERO(NON-SPEC LS17 02450017
GPSIZEH0 DS    1F          SIZE OF H0                                LS17 02451017
GPSIZEH1 DS    1F          SIZE OF H1                                LS17 02452017
GPSIZEPP DS    1F          REGION SIZE FOR P/P                       I272 02452319
GPSIZET  DS    1F          REGION SIZE FOR TERMINATE                 I272 02452619
GPADDHOR DS    1F          ORGINAL ADDRESS                           CR17 02453017
GPMINPAR DS    1F          247 + MINIMUM REGION SIZE                 CR17 02454017
         END                                                              02460000
         TITLE 'IEFSD161 VMS JOB SELECT MODULE'                        00020000
IEFSD061 CSECT                                                         00040000
*                                                                A21364 00045019
*037880                                                           M0429 00050018
*                                                                      00051019
*  RELEASE 19    -  -  -                                               00052019
* 037700-037970,124053-124062                                    A27668 00052519
* 033800-034400,059400-061000,089600-091000,107800-108400           099 00053019
* 124000-127000                                                     099 00054019
*                                                                      00055019
*                                                                      00056019
*                                                                      00057019
*                                                                      00058019
*                                                                      00059019
*********************************************************************** 00060000
*                                                                     * 00080000
*                        JOB SELECT MODULE                            * 00100000
*                                                                     * 00120000
*********************************************************************** 00140000
*                                                                     * 00160000
*                                                                      00180000
*STATUS: CHANGE LEVEL 000                                              00200000
* FUNCTION:  TO GET THE HIGHEST PRIORITY JOB FROM THE QUEUE, READ THE * 00220000
*        APPROPRIATE SCT FOR THE JOB,AND SET UP THE MESSAGE CLASS  CR17 00240017
*        QUEUE MANAGER PARAMETER AREA.                             CR17 00260017
*            ALSO,                                                     00280000
*            TO PREPARE A DATA SET ENQ PARAMETER LIST AND             * 00300000
*            A DSNAME DEQ TABLE                                       * 00320000
*               CONDITIONALY INVOKE A DIRECT SYSOUT (DSO)           099 00322019
*               ROUTINE TO SELECT ELIGIBLE DSO DEVICES TO BE        099 00324019
*               USED BY THE DEQUEUED JOB.  JOB CLASS AND            099 00326019
*               SYSOUT CLASS ARE USED TO SELECT ELIGIBLE DSO        099 00328019
*               DEVICES.  DIRECT SYSOUT CONTROL BLOCKS (DSOCB)      099 00330019
*               CONTAIN NECESSARY DATA FOR SELECTION AND            099 00332019
*               MODIFICATION OF THE RESPECTIVE SYSOUT'S SIOT        099 00334019
*               AND JFCB TO THAT OF THE DSO DEVICE.                 099 00336019
*                                                                      00340000
*   ENTRY POINTS - IEFSD161 FROM IEFSD160,IEFSD166,AND IEFSD105        00360014
*                                                                      00380000
* INPUT:  REGISTER ONE CONTAINS THE LCT ADDRESS                       * 00400000
*                                                                     * 00420000
* OUTPUT:  REGISTER ONE CONTAINS THE LCT ADDRESS AND THE LCT CONTAINS * 00440000
*          THE CURRENT JCT AND SCT CORE ADDRESSES                     * 00460000
*                                                                     * 00480000
*                                                                      00500000
*EXTERNAL ROUTINES: IEFQMDQ2 - REQUEST WORK                            00540000
*                   IEFQMUNC - DELETE WORK REQUEST                     00560000
*                   IEFQMRAW - Q MNGR READ/WRITE ROUTINE               00580000
*                   IEFDSTBL - DATA SET INTEGRITY                      00600000
*                   IEFDSLST - DATA SET INTEGRITY                      00620000
*                                                                      00640000
*                                                                     * 00660000
*   EXITS - 1. JOB TO PROCESS - IEFSD162                               00670014
*           2. STOP INIT - BACK TO MASTER                              00680014
*           3. MODIFY INITIATOR - IEF060SD                            * 00686015
*           4. WAIT FOR WORK - IEFSD105                               * 00692015
*           5. DIRECT SYSOUT (DSO) SELECTION - IEFDSOSL             099 00694019
*                                                                   099 00696019
* EXTERNAL REFERENCES: IEFQSSS,IEFDSTBL                                 00700000
*  TABLES/WORK AREAS:  JCT,SCT, LIFE OF TASK BLOCK, AND JOB CSCB ARE  * 00720000
*                      IN MAIN STORAGE AT EXIT                        * 00740000
*                      QUEUE MANAGER RESIDENT CORE AREA               * 00760015
*                      DIRECT SYSOUT CONTROL BLOCKS (DSOCB)         099 00770019
*                                                                     * 00780015
*ATTRIBUTES  REENTRANT                                                * 00800015
*                                                                     * 00820015
*                                                                     * 00840000
*********************************************************************** 00860000
         EJECT                                                          00880000
R0       EQU   0                                                        00900000
R1       EQU   1                                                        00920000
R2       EQU   2                                                        00940000
R3       EQU   3                                                        00960000
R4       EQU   4                                                        00980000
R5       EQU   5                                                        01000000
R6       EQU   6                                                        01020000
R7       EQU   7                                                        01040000
R8       EQU   8                                                        01060000
R9       EQU   9                                                        01080000
R10      EQU   10                                                       01100000
R11      EQU   11                                                       01120000
R12      EQU   12                                                       01140000
R13      EQU   13                                                       01160000
R14      EQU   14                                                       01180000
R15      EQU   15                                                       01200000
         BALR  R12,0                    SET PROGRAM BASE REGISTER       01220000
         USING IEFJCT,R11                                               01240000
         USING IEFLOT,R10                                               01260000
         USING IOPARAMS,R9                                              01280000
         USING RSAR,R13                                                 01310014
         USING *,R12                                                    01320000
*********************************************************************** 01340000
*                                                                     * 01360000
*  THIS SECTION OF CODE IS FOR PROVIDING A METHOD OF IDENTIFYING      * 01380000
*                THIS MODULE IN A MEMORY DUMP                         * 01400000
*                                                                     * 01420000
         B     FIRST                                                  * 01440000
         DC    X'CCCC'                                                * 01460000
         DC    C'IEFSD161'                                              01480000
         DC    X'05031966'                                              01500000
FIRST    DS    0H                                                     * 01520000
*                                                                     * 01540000
*********************************************************************** 01560000
         EJECT                                                          01580000
         LR    R10,R1              GET BASE FOR LIFE OF TASK BLOCK      01610015
         LA    R9,QMGR1            GET BASE FOR QUEUE MANAGER PARAMETER 01640014
*                                  AREA(QMPA)                           01670014
         LA    R13,REGSAVE         GET BASE FOR RSAR DSECT(THE 1ST 18   01700014
*                                  WORDS OF WHICH SERVE AS A SAVE AREA  01730014
*                                  FOR THIS PROGRAM)                    01760014
         TM    LCTOPSW1,LCTSTMDF   STOP/MODIFY PROCESSING WANTED   I272 01760419
         BNO   ECBTEST             YES, GO CHECK FOR STOP          I272 01760819
         TM    LCTINTSW,LCTSTOP    INTERNAL STOP WANTED            I272 01761219
         BNO   SD612021            NO, GO PROCESS THE JOB          I272 01761619
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           B      SD061037                 YES GO PREPARE TO STOP                  1272 01762019
ECBTEST    EQU    *                        TEST FOR EXTERNAL STOP                  1272 01762419
           L      R8,ECBLIST               GET POINTER TO ECB LIST                       01763015
           L      R1,0(R8)                 LOAD ADDRESS OF COMMUNICATION ECB             01766015
           TM     0(R1),STOPBIT            IS THE STOP BIT POSTED                        01769015
           BO     SD61550                  YES BRANCH TO STOP                            01772015
SD61549    EQU    *                                                                      01775015
           USING COMPA,R2                  COMM PARM AREA ADDRESSABILITY           1272 01776019
           L      R2,LCTCOM                NO, COMM PARM AREA PTR -CPA             1272 01777019
           L      R3,COMCIBPT              POINTER TO CIB                          1272 01778019
           DROP   R2                                                               1272 01779019
           LA     R3,0(R3)                 GET RID OF HIGH ORDER BYTE                    01784015
           LTR    R3,R3                    IS IT ZERO                                    01787015
           BZ     SD612021                 YES, BRANCH AND SCAN REST OF ECBLIST 01790015
           BAL    R7,SD612270              BRANCH TO UNCHAIN ECBS                        01796015
*                 ADDRESS OF LCT IS IN R10 FOR IEFSD160                            1272 01798019
           L      R15,IEFSD60V             ADDRESS OF MODULE IEFSD060                    01801015
           BR     R15                      GO TO IEFSD060                                01803015
SD61550    NI     0(R1),X'AF'              TURN OFF POST AND STOP BITS                   01805015
           ENQ    MF=(F,IEFSD61C)          ENQ ON GROUP CONTROL BLOCK CHAIN              01808015
           L      R7,CVTPTR                LOAD POINTER TO CVT                           01811015
           USING CVTDSECT,R7                                                             01814015
           L      R7,CVTMSER               LOAD ADDRESS OF BASE A                        01817015
           USING BASE,R7                                                                 01820015
           LA     R5,BATRM                 LOAD ADD OF GCB POINTER                       01823015
           L      R4,BATRM                 LOAD GCB POINTER                              01826015
           DROP   R7                                                                     01829015
SD61551    EQU    *                                                                      01832015
           CLC    16(8,R4),LCTIDENT        ARE IDENTIFIERS EQUAL                         01841015
           BE     SD61552                  YES, BRANCH AND CONTINUE                      01844015
           LA     R5,4(R4)                 NO, SAVE ADDRESS OF LAST GCB PLUS 4           01847015
           L      R4,4(R4)                 LOAD POINTER TO NEXT GCB                      01850015
           B      SD61551                  BRANCH AND CHECK THIS GCB                     01853015
SD61552    EQU    *                                                                      01856015
           SR     R7,R7                    ZERO OUT REGISTER                             01859015
           IC     R7,25(R4)                SET STOP COUNT                                01862015
           LTR    R7,R7                    IS STOP COUNT ZERO                            01865015
           BNZ    SD61553                  NO, BRANCH AND CONTINUE                       01868015
           USING COMPA,R2                  COMMUN PARM AREA ADDRESSABLITY          1272 01868219
           L      R2,LCTCOM                ADDRESS OF COMMUN PARM AREA             1272 01868419
           L      R1,COMCIBPT              ADDRESS OF CIB                          1272 01868619
           USING CIBDSECT,R1               CIB ADDRESSABILITY                      1272 01868819
           LTR    R1,R1                    IS THERE A CIB                          1272 01869019
           BZ     SD61549A                 NO, GO CHECK FOR MODIFY                 1272 01869219
           CLI    CIBVERB,CIBSTOP          IS THIS STOP CIB                        1272 01869419
           BNE    SD61549A                 NO, GO CHECK FOR MODIFY                 1272 01869619
           LA     R0,COMCIBPT              ADDRESS OF CIB PTR                      1272 01869819
           DROP   R2                                                               1272 01870019
           B      FREESTOP                 GO FREE STOP CIB                        1272 01870219
SD61549A   EQU    *                                                                1272 01870419
           DEQ    MF=(E,IEFSD61C)          DEQ ON GROUP CONTROL BLOCK CHAIN              01871015
           B      SD61549                  GO CHECK FOR MODIFY                           01874015
SD61553    EQU    *                                                                      01877015
           BCTR   R7,R0                    DECREMENT STOP COUNT                          01880015
           STC    R7,25(R4)                STORE STOP COUNT                              01883015
           LA     R0,28(R4)                ADDRESS OF CIB POINTER IN GCB                 01883718
           L      R1,28(R4)                POINTER TO THE CIB                            01884418
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FREESTOP EQU   *                                                 1272 01884719
         QEDIT BLOCK=(1),ORIGIN=(0)      FREE THE STOP CIB            01885118
         IC    R7,24(R4)            LOAD MEMBER COUNT                 01886015
         BCTR  R7,R0                DECREMENT MEMBER COUNT            01889015
         LTR   R7,R7                IS MEMBER COUNT ZERO              01892015
         BNZ   SD61554              NO, BRANCH AND CONTINUE           01895015
         MVC   0(4,R5),4(R4)        YES,MOVE POINTER TO NEXT GCB      01898015
*                                   INTO LAST GCB                     01901015
         LH    R0,0(R4)             LOAD LENGTH OF GCB                01904015
         LA    R1,255               LOAD SUBPOOL                      01907015
         SLL   R1,24                MOVE SUBPOOL TO HIGH ORDER BYTE   01910015
         OR    R0,R1                OR IN SUBPOOL NUMBER              01913015
         LR    R1,R4                LOAD ADDRESS OF GCB               01916015
         FREEMAIN R,LV=(0),A=(1)    FREE GCB                          01919015
         B     SD61555              BRANCH AND CONTINUE               01922015
SD61554  EQU   *                                                      01925015
         STC   R7,24(R4)            STORE MEMBER COUNT                01928015
         USING COMPA,R7             CPA ADDRESSABILITY           1272 01929019
         L     R7,LCTCOM            CPA POINTER                  1272 01930019
         L     R7,COMCIBPT          ADDRESS OF CIB               1272 01931019
         DROP  R7                                                1272 01932019
         LA    R7,0(R7)             GET RID OF HIGH ORDER BYTE        01937015
         LTR   R7,R7                IS A MODIFY OUTSTANDING           01940015
         BZ    SD61555              NO, BRANCH AND CONTINUE           01943015
         SR    R7,R7                YES, ZERO REGISTER                01946015
         IC    R7,26(R4)            LOAD MODIFY COUNT                 01949015
         BCTR  R7,R0                DECREMENT MODIFY COUNT            01952015
         STC   R7,26(R4)            PUT MODIFY COUNT BACK             01955015
SD61555  EQU   *                                                      01958015
         DEQ   MF=(E,IEFSD61C)      DEQ ON GROUP CONTROL BLOCK CHAIN  01961015
         B     SD061037                                               01964015
SD612021 EQU   *                                                      01967015
         L     R11,LCTJCTAD         LOAD ADDRESS OF JCT          1272 01975019
         LTR   R11,R11              IS THERE AN IN-CORE JCT      1272 01983019
         BNZ   JCTIN                YES, DONT GET CORE FOR JCT   1272 01991019
         GETMAIN R,LV=176,SP=TCORE GET CORE FOR JCT                   02000014
         LR    R11,R1               GET BASE FOR JCT                  02030014
********************************************************************* 02060014
SD612020 EQU   *                                                      02080015
         LA    R8,4(R8)             POINT TO NEXT ECB POINTER         02100015
         L     R1,0(R8)             LOAD ECB POINTER                  02120015
         TM    0(R1),POSTBIT        IS IT POSTED                      02140015
         BO    SD612010             YES, BRANCH TO SET UP FOR Q-MANAGER 02160015
SD612030 EQU   *                                                      02180015
         TM    0(R8),ENDBIT         IS THIS END OF ECB LIST           02200015
         BZ    SD612020             NO, BRANCH AND CHECK NEXT ECB     02220015
         B     SD061028             YES, SET UP FOR WAIT ROUTINE      02240015
********************************************************************* 02660014
*        SET UP TO GO TO QUEUE MANAGER AND SEE IF THERE IS WORK     * 02690014
********************************************************************* 02720014
SD612010 EQU   *                                                      02740015
         LA    R3,REMLST            LOAD ADDRESS OF REMOTE AREA       02760015
         ST    R3,QMPCL             PLACE ADDRESS IN QMPA             02780015
         MVI   QMPOP,QMDTOP         INDICATE DEQUEUE                  02800015
         MVC   QMTPY(1),4(R1)       INDICATE JOB CLASS                02820015
         ST    R11,LCTJCTAD               PUT JCT CORE ADDR IN LCT    02870014
         ST    R11,REMLST                 PUT JCT CORE ADDR IN REMOTE 02900014
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*                                          LIST                                 02930014
         XC    REMLST+4(4),REMLST+4        ZERO TTR SLOT IN REMOTE LIST         02960014
         ST    R1,QMCAN                                                         03020015
         L     R15,IEFQMVCN                GET ADDR OF Q MANAGER RTN            03110014
         LR    R1,R9                       QMPA ADDR INTO R1                    03140014
         BALR  R14,R15                     GO TO QUEUE MANAGER TO TRY TO        03170014
*                                          GET WORK                             03200014
         B     SD061020(R15)               BRANCH INDEXED BY RETURN CODE        03230014
SD061020 B     SD061040                JOB DEQUEUED - GO TO PROCESS IT          03260014
         B     SD612030                NO WORK, CONTINUE CHECKING               03290015
         BC    0,SD061020                  NO-OP,NO SPACE                       03320014
***** I/O ERROR ***** TEMP ABEND AND LOOP                                       03350014
         B     BADIO     COND CODE=12, GO TO ABEND ROUTINE                  099 03410019
*****          *****                                                            03470014
SD061028 TM    WTOSWTCH,X'FF'          CHECK TO SEE IF 'INPUT QUEUE EMPTY'      03500014
*                                      MESSAGE HAS ALREADY BEEN PUT OUT         03530014
*                                      ONCE DURING THIS INITIATOR'S WAIT        03560014
*                                      FOR WORK                                 03590014
         BC    8,SD061030              YES - BRANCH AROUND WTO                  03620014
         NI    WTOSWTCH,X'00'          TURN OF SWITCH SO MESSAGE WILL NOT       03650014
*                                      BE PUT OUT AGAIN UNTIL AFTER THIS        03680014
*                                      INIT HAS RECEIVED WORK AND PROCESSED     03710014
*                                      IT AND GONE INTO A WAIT AGAIN            03740014
         LA    R0,WTO429EX         SIZE OF WTO AND INIT ID               A27668 03742019
         GETMAIN R,LV=(0)        CORE FOR MSG                            A27668 03744019
*            R1 WILL BE MAINTAINED FOR MSG AREA BASE                     A27668 03746019
         L      'R2,MSGAD        WTO CSECT                               A27668 03748019
         MVC   D0(WTO429A,R1),D0(R2)  1ST HALF OF WTO MSG & QUOTEA27668 03750019
         LA    R15,WTO429A(,R1)        WHERE INIT ID IS TO GO            A27668 03752119
         LR    R0,R15                  SAVE FOR LENGTH (LNG) COMPUTE A27668 03753019
         MVC   D0(D8,R15),LCTIDENT INIT FOR MSG                          A27668 03757019
         LA    R14,D8            LOOP LIMITING REG                       A27668 03758019
*        WILL NOW FIND 1ST BLANK IN ID IF ONE                            A27668 03760019
SD61750  CLI   D0(R15),BLANK   IS ID BYTE BLANK                          A27668 03762019
         BE    SD61751           YES - END OF ID                         A27668 03764019
         LA    R15,D1(,R15)      NO - TEST NEXT HIGHER BYTE              A27668 03766019
         BCT   R14,SD061750      LOOP IF NOT END OF ID SCAN              A27668 03768019
*    R15 NOW POINTS TO BYTE AFTER END OF ID                              A27668 03770019
SD61751  MVC   D0(WTO429B,R15),WTO429A(R2)     LAST HALF OF MSG          A27668 03772019
*                                STARTING WITH SECOND QUOTE              A27668 03774019
         SR    R15,R0            COMPUTE ID LNG                          A27668 03776019
         AH    R15,D0(,R1)       ADD WTO MSG LNG TO THIS VALUE           A27668 03778019
         STH   R15,D0(,R1)       UPDATE WTO MSG LNG                      A27668 03780019
         LR    R2,R1             SAVE MSG ADR                            A27668 03782019
         WTO   MF=(E,(1))        ISSUE MSG TO OPERATOR                   A27668 03784019
         LA    R0,WTO429EX         SIZE OF WTO AND INIT ID               A27668 03786019
         LR    R1,R2             SET R1 AGAIN WITH MSG CORE ADR          A27668 03788019
         FREEMAIN R,LV=(0),A=(1)     FREE MSG CORE                       A27668 03790019
SD061030 LR    R1,R11                  GET JCT ADDRESS                          03810014
         FREEMAIN R,LV=176,A=(1),SP=TCORE           FREE JCT CORE               03820014
         XC    LCTJCTAD(D4),LCTJCTAD       ZERO OUT JCT ADDRESS            I272 03825019
         LR    R1,R10          GET LIFE OF TASK BLOCK ADDR                          0389
         L     15,16           MOTHER CVT                                           0390
         L     15,0(0,15)      DOUBLEWORD                                           0391
         L     15,4(0,15)      THE TCB                                              0392
         L     15,12(0,15)     OUR TIOT                                             0393
         CLI   0(15),C'F'      FIXED PARTITION?                                     0394
         BNE   LACTATE       NO                                             0395
         L     R15,IEFSD62V       GET ADDRESS OF IEFSD062.
         LA    R15,DISPLACE(R15)  BUMP IT TO FTT FLAG.
         MVI   0(R15),X'FF'       SET FTT FLAG ON.
HITIT    L     R1,ECBLIST         LOAD ECB LIST PTR.
         WAIT  1,ECBLIST=(1) WAIT FOR WORK                                  0397
         B     FIRST+2       SKIP MICKEY MOUSE                              0398
LACTATE  EQU   *                                                            0399
         XCTL  EP=IEFSD105,MF=(E,(1)) XCTL TO LINK PACK AREA TO WAIT    03890014
*                                     FOR WORK OR STOP INIT - THUS      03920014
*                                     MAKING AVAILABLE THE SPACE  THE   03950014
*                                     IEFSD061 LOAD IS OCCUPYING        03980014
*********************************************************************** 04010014
SD061037 EQU   *                                                        04040015
         L     R3,LCTSREG                                               04070015
         TM    LCTOPSW1,LCTICMDF   PROCESSING INITIATOR COMMANDS  M3161 04100019
         BO    NOTTHRES            NO, DONT REDUCE THRESHOLD      M3161 04130019
         L     R7,16                         ADDRESS OF CVT             04160000
         USING CVTDSECT,R7                                              04180000
         L     R7,CVTJOB                     GET ADDRESS OF RESID CORE  04200000
         USING QMRDSECT,R7                                              04220000
*                                                                       04240000
         ENQ   MF=(E,IEFSD61B)               ENQUEUE ON ASSIGN/DELETE   04260000
         LH    R0,QMTBT                      GET SIZE OF THRESHOLD      04280000
         TM    QMQBK,QMRSV         TEST IF HAVE RESERVE                 04300000
         BZ    SD061038            NO-THIS INIT'S THRSHLD WILL BE RESV  04320000
         SH    R0,QMTRS                      SUB SIZE GARENTEED AN INIT 04340000
         STH   R0,QMTBT                      SAVE NEW SIZE              04360000
SD061038 OI    QMQBK,QMRSV         SET RESERVE BIT ON                   04380000
         DEQ   MF=(E,IEFSD61B)               DEQUEUE ON ASSIGN/DELETE   04400000
NOTTHRES EQU   *                                                  M3161 04460019
         LA    R7,SD612073                                              04522015
SD612270 EQU   *                                                        04524015
SD612070 EQU   *                                                        04528015
         L     R6,ECBLIST          ADDRESS OF ECBLIST              I272 04528319
         LR    R8,R6               SAVE ECBLIST ADDRESS            I272 04528619
         LTR   R8,R8               IS THERE AN ECBLIST             I272 04528919
         BCR   08,R7               NO, DONT UNCHAIN IT             I272 04529219
NEXTECB  EQU   *                                                   I272 04529519
         LA    R8,4(R8)            LOAD ADDR OF POINTER TO ECB          04530015
         L     R1,0(R8)            LOAD ECB POINTER                     04532015
         LA    R1,0(R1)            CLEAR HIGH ORDER BYTE                04533015
         TM    0(R1),POSTBIT       TEST FOR POSTED                      04534015
         BZ    SD612072            NO, BRANCH AND UNCHAIN               04536015
SD612071 EQU   *                                                        04538015
         TM    0(R8),ENDBIT        TEST FOR END OF LIST                 04540015
         BZ    NEXTECB             NO, GO TEST NEXT ECB            I272 04542019
         BR    R7                  YES RETURN                           04544015
SD612072 EQU   *                                                        04546015
         L     R15,QMNCVCON        GET ADDRESS OF UNCHAIN ROUTINE       04548015
         BALR  R14,R15             GO TO UNCHAIN                        04550015
         MVI   0(R1),X'40'         POST UNCHAINED ECB                   04551016
         B     SD612071            GO CHECK FOR END OF LIST             04552015
SD612073 EQU   *                                                        04552515
         LTR   R6,R6               IS THERE AN ECBLIST             I272 04553519
         BZ    TESTKEY             NO, DONT FREE IT                I272 04554519
         LR    R1,R6               LOAD POINTER TO ECB LIST             04556015
         LA     R0,4               LOAD CONSTANT OF 4                         04558015
         SR     R1,R0              SUBTRACT TO GET TO LENGTH OF ECBLIST 04560015
         L     R0,0(R1)            LOAD LENGTH                                04562015
         LA    R8,TCORE                                                       04564015
         SLL   R8,24                                                          04566015
         OR    R0,R8                                                          04568015
         FREEMAIN  R,LV=(0),A=(1)                                             04570015
TESTKEY  EQU   *                                                         I272 04572019
         TM    LCTOPSW1,LCTPKEYF    WAS PROTECT KEY GOTTEN               I272 04574019
         BO    NOTFREE              NO, SO DONT FREE IT                  I272 04576019
         L     R6,16               LOAD ADDR OF CVT INTO BASE REG 6           04580000
         USING CVTDSECT,R6                                                    04600000
         L     R6,CVTTCBP          LOAD ADDR OF TCB INTO BASE REG 6           04620000
         L     R6,4(R6)                                                       04640000
         XR    R1,R1               CLEAR REG 1                                04660000
         IC    R1,28(6)            INSERT PROTECT KEY INTO BASE REG 1         04680000
         SRL   R1,4(0)             MOVE KEY TO LOW ORDER BITS OF REG          04700000
         LA    R2,1(0)             LOAD 1 INTO REG 2                          04720000
         SLL   R2,0(1)             SHIFT LEFT KEY NUMBER OF BITS              04740000
         L     R6,16               LOAD ADDR OF CVT INTO BASE REG 6           04760000
         USING CVTDSECT,R6                                                    04780000
         L     R6,CVTMSER          LOAD ADDR OF MASTER INTO REG 6             04783019
         USING BASE,R6                                                        04786019
         EX    R2,EXXI             TURN OFF KEY SWITCH                        04789019
         SRL   R2,8(0)             SHIFT TO HI EIGHT BITS                     04792019
         EX    R2,EXXIA            TURN OFF KEY SWITCH                        04795019
NOTFREE  EQU   *                                                         I272 04798019
         L     R9,LCTEXIT           SAVE ADDRESS OF EXIT LIST            I272 04801019
********************************************************************** 04804019
         LR    R1,R10               ADDRESS OF LIFE OF TASK BLOCK             04807019
         LA    R0,IEFEND-IEFLOT     LENGTH OF LOT                             04810019
         LA    R14,TCORE            SUBPOOL NUMBER                            04813019
         SLL   R14,24               PLACE IN HIGH ORDER BYTE OF               04816019
         OR    R0,R14               LENGTH REGISTER                           04819019
         FREEMAIN  R,LV=(0),A=(1)   FREE LOT                                  04822019
         LR    R1,R11                                                         04825019
********************************************************************** 04828019
         USING IELEXITS,R9          EXIT LIST ADDRESSABILITY             I272 04831019
         LA    R9,ZERO(R9)          ZERO HIGH ORDER BYTE                 I272 04834019
         LTR   R9,R9                IS THERE AN EXIT LIST                I272 04837019
         BZ    RETURN               NO, EXIT TO MASTER SCHED             I272 04840019
         LR    R1,R9                EXIT LIST ADDRESS                    I272 04843019
         CLI   RTNEXLK,IELEXADD     IS THIS A BRANCH EXIT                I272 04846019
         BE    BRANCH               YES, PREPARE TO BRANCH               I272 04849019
         LA    R0,D16               REMOTE LIST + SUP PARMLIST          M4339 04852019
         GETMAIN R,LV=(0)          GET CORE FOR REMOTE LIST             M4339 04855019
         XC    ZERO(D16,R1),ZERO(R1)     CLEAR CORE                     M4339 04858019
         LR    R15,R1               ADDR OF SUP PARMLIST                M4339 04861019
         LA    R2,D8(R1)            ADDR OF REMOTE LIST                 M4339 04864019
         LR    R1,R9               EXIT LIST ADDRESS                    M4339 04867019
         MVC   ZERO(D6,R2),RTNEXNM MOVE EXIT NAME                       M4339 04870019
         MVI   D6(R2),BLANK        PAD WITH BLANKS                      M4339 04873019
         MVI   D7(R2),BLANK        PAD WITH BLANKS                      M4339 04876019
         ST    R2,ZERO(R15)         REMOTE LIST ADDR                    M4339 04879019
         LR    R2,R15               ADDR OF SUP PARMLIST                M4339 04882019
         CLI   RTNEXLK,IELEXXTL     IS EXIT BY XCTL                      I272 04889619
         BE    GOXCTL               YES, PREPARE TO XCTL                 I272 04889719
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*   IF EXIT IS NOT BY BR OR XCTL, LINK IS ASSUMED                *  I272 04889819
         LINK   MF=(E,(1)),SF=(E,(15))   GO TO EXIT ROUTINE        M4339 04890619
         B     RETURN              GO RETURN                       M4339 04891419
GOXCTL   EQU   *                                                   M4339 04892219
         XCTL  ,MF=(E,(1)),SF=(E,(15))   GO TO EXIT ROUTINE        M4339 04893019
BRANCH   EQU   *                                                   M4339 04893819
         L     R15,RTNEXAD          ADDRESS OF EXIT ROUTINE        M4339 04894619
         BR    R15                  BRANCH TO EXIT ROUTINE         M4339 04895419
RETURN   EQU   *                    RETURN TO ATTACHER             M4339 04896219
         LR    R14,R3               INITIALIZE RETURN REGISTER     M4339 04897019
         BR    R14                                                       04898015
MOVEMESS MVC   0(0,R3),31(R2)                                            04903015
ENDBIT   EQU   X'80'                                                     04908015
************************************************************************ 04916014
EXXI     XI    BARSW+5,0           TURN OFF PROTECT KEY                  04917019
EXXIA    XI    BARSW+4,0                                                 04918019
SD061040 EQU   *                                                         04919019
         USING IEFCSCB,R1           CSCB ADDRESSABLITY              I272 04920019
         OI    CHSTS,CHDL           INDICATE FREE WHEN JOB TERM     I272 04921019
         DROP  R1                                                   I272 04922019
         ST    R1,LCTQDRTY          ADDRESS OF JOB CSCB             I241 04923019
         USING IOPARAMS,R9          QMGR PARAM AREA ADDRESSABILITY  I272 04924019
JCTIN    EQU   *                                                    I272 04925019
         LA    RO,WTPCBSIZ          SIZE OF WTPCB                  M4339 04926019
         O     RO,M253              SUBPOOL IN HIGH ORDER BYTE      I254 04927019
         GETMAIN    R,LV=(0)        GET CORE FOR WTPCB              I254 04928019
         LR    R6,R1                SAVE ADDRESS                    I254 04929019
         XC    ZERO(WTPCBSIZ,R1),ZERO(R1)    ZERO WTPCB            M4339 04930019
         GETJSCB    SYSTEM=MVT      GET MVT JSCB                    I254 04931019
         USING IEZJSCB,R1           JSCB ADDRESSABILITY             I254 04932019
         ST    R1,LCTJSCB           ADDRESS OF JSCB TO LCT          I254 04933019
         ST    R6,JSCBWTP           ADDRESS OF WTPCB TO JSCB        I254 04934019
         MVC   JSCBCSCB+ONE(D3),LCTQDRTY+ONE ADDR CSCB              I254 04935019
         TM    LCTOPSW2,LCTTIMEF    IS TIMING WANTED                I272 04936019
         BNO   YESTIME              YES, CONTINUE                   I272 04937019
         MVC   JCTJMRTL,HOUR24           NO, INSERT MAX TO          I272 04938019
*                                        INDICATE NO TIMING         I272 04939019
YESTIME  EQU   *                                                    I272 04940019
         SR    RO,RO                CLEAR REGISTER                  I272 04943019
         STC   RO,FRCPRTY           CLEAR FORCE SLOT IN LCT         I272 04946019
         L     R1,ECBLIST           ADDRESS OF ECBLIST              I272 04949019
         LTR   R1,R1                IS THERE AN ECBLIST             I272 04952019
         BZ    NOFORCE              NO, DONT INSERT FORCE IN LCT    I272 04955019
         LA    R1,4(R1)             LOAD ADDRESS OF FIRST JOB ECB   I241 04963018
         SR    R8,R1                DETERMINE OFFSET INTO           I241 04964018
         SRL   R8,2                    FORCE TABLE                  I241 04965018
         LA    R1,LCTFORCE          LOAD ADDRESS OF FORCE TABLE     I241 04968018
         IC    RO,0(R8,R1)          LOAD FORCE VALUE                I241 04969018
         LTR   RO,RO                WAS FORCE SPECIFIED             I241 04970018
         BZ    SD061044             NO, BRANCH AND CONTINUE         I241 04971018
         STC   RO,FRCPRTY           YES, STORE FORCE PRTY IN SLOT   I241 04972018
SD061044 EQU   *                                                    I241 04973018
         L     R8,ECBLIST           LOAD POINTER TO ECBLIST              04980516
         BAL   R7,SD612070          GO UNCHAIN ECBS                      04981016
NOFORCE  EQU   *                                                    I272 04981219
         L     R1,LCTQDRTY          RESTORE REGISTER ONE                 04981516
************************************************************************ 04982014
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         MVN   JCTJPRTY(1),QMPRI   RFPLACE THE JOB'S ORIGINAL       CR17 04984017
*                                  PRIORITY IN THE JCT WITH ITS PRESENT 04986014
*                                  PRIORITY FROM THF QMPA. IN CASF ITS  04988014
*                                  PRIORITY WAS CHANGED WHILE IN THE    04990014
*                                  INPUT QUEUE                          04992014
*********************************************************************** 04994014
         OI    QMPRI,X'20'             INDICATE INITIATOR QMPA      994 05000000
         L     R6,16                   LOAD ADDR OF CVT INTO BASE R6    05020000
         USING CVTDSECT,R6                                              05040000
         L     R6,CVTTCBP                                               05060000
         L     R6,4(R6)                LOAD ADDR OF TCB INTO BASE R6    05080000
         L     R5,12(R6)               LOAD ADDR OF TIOT INTO R5        05100000
         DROP  R6                                                       05120000
         TM    LCTOPSW1,LCTICMDF   PROCESS INIT COMMANDS           M4339 05126019
         BO    NOMVJBNM            NO, DONT UPDATE T&OT            M4339 05132019
         MVC   8(8,R5),QMNAM           MOVE JOBNAME INTO TIOT SSS FIELD 05140000
NOMVJBNM EQU   *                                                   M4339 05150019
         TM    QMSTA,CANCELED     WAS JOB CANCELLED IN-QUEUE            05160000
         BC    8,SD061042        NO, CONTINUE                           05180000
         USING IELEXITS,R2         EXIT LIST ADDRESSABILITY         I272 05182019
         L     R2,LCTEXIT          ADDRESS OF EXIT LIST             I272 05184019
         LA    R2,ZERO(R2)         CLEAR HIGH-ORDER BYTE            I272 05186019
         LTR   R2,R2               IS THERE AN EXIT LIST            I272 05188019
         BZ    NOEXITL             NO, NO RETURN CODE               I272 05190019
         MVI   IELRTNCD,IOERR      YES, INSERT I/O RETURN CODE      I272 05192019
NOEXITL  EQU   *                                                    I272 05194019
         OI    JCTJSTAT,INCMSTS   YES, SET JOB-FAIL BIT IN JCT          05200000
         OI    LCTQENTY,LCTERRM    TURN ON TERM BIT                     05202014
         XC    JCTDETDA(3),JCTDETDA     ZFRO OUT TTR OF DSENQ TABLE     05205014
*                                       SO DATA SETS WILL NOT BE        05210014
*                                       ENQUEUED UPON                   05215014
SD061042 EQU   *                                                        05220000
*********************************************************************** 05240000
*                                            INSERT PROTECT KEY FROM  * 05260000
*                                            INITIATOR TCB AND PLACE  * 05280000
*                                            IN JCT FOR UNIQUF JOB    * 05300000
*                                            SERIAL  NO.              * 05320000
*********************************************************************** 05340000
         USING IEFCSCB,R1                                               05380000
*                                                                       05400000
*                                            SAVE O AND POINTER TO JOB  05420000
*                                            NAME IN THE STACK AND      05440000
*                                            QUEUE BREAK AREA. JOB NAME 05460000
*                                            NEEDED FOR MESSAGE AND     05480000
*                                            CANCEL JOB COMMAND, O IS   05500000
*                                            TO INDICATE TRACKS OF      05520000
*                                            QUEUE USED BY INITIATOR    05540000
*                                                                       05560000
         LA    R2,CHKEY                      GET POINTER TO JOB NAME    05580000
         ST    R2,TRSTKINF+4                 PUT IN O AND JOB NAME PTR  05600000
         MVC   TRSTKINF+4(1),JCTNTRK   MOVE TRACKS USED                 05603018
         MVC   CHJCL(4),JCTDSKAD       PLACE JCT TTR IN CSCB OF JO CR17 05606017
         MVI   CHJCL+3,X'00'           BE SURE LAST BYTE IS ZERO   CR17 05612017
         L     R1,CHSWT                      R1 = TCB ADDR              05620000
TCBPKF    EQU  28                                                       05640000
         DROP  R1                                                  M2942 05641019
         L     R2,LCTQDRTY         ADDRESS OF CSCB                 M2942 05642019
         USING IEFCSCB,R2          CSCB ADDRESSABILITY           M2942 05643019
         TM    CHSWT,CHSYS         IS THIS FOR A SYSTEM TASK     M2942 05644019
         BNO   NOTZEROK            NO, PUT IN PROTECT KEY        M2942 05645019
         DROP  R2                                                M2942 05646019
* 119450                                                         M4008 05647019
         MVI   JCTJSRNO,FOXFOX     YES, INSERT NONZERO NUMBER     I272 05649019
         B     ZEROKEY             SKIP MOVE FROM TCB             I272 05652019
NOTZEROK EQU   *                                                  I272 05655019
         MVC   JCTJSRNO(1),TCBPKF(R1)       MOVE PROTECT KEY TO JCT    05660000
ZEROKEY  EQU   *                                                  I272 05670019
         DROP  R1                                                      05680000
         GETMAIN  R,LV=176,SP=TCORE     GET CORE FOR SCT               05700000
         ST    R1,REMLST                ADDRESS OF GOTTEN CORE         05720000
         ST    R1,LCTSCTAD              SCT ADDRESS TO LCT             05740000
         MVC   REMLST+4(4),JCTSSTR      ALTERNATE SCT TTR IN REMOT CR17 05770017
         SR    R2,R2                    ZERO A REGISTER TO             05800000
         ST    R2,QMCAN                 ZERO OUT ECB SLOT              05820000
         MVI   QMPCL,1                  INDICATE ONE OPERATION         05840000
         MVI   QMPOP,4                  INDICATE READ OPERATION        05860000
         LR    R1,R9                    ADDRESS OF Q MGR PAR AREA      05880000
         L     R15,IEFQMRD              ADDRESS OF READ MODULE         05900000
         BALR  R14,R15                  GO TO THE READ MODULE          05920000
         LTR   R15,R15   ANY NON-ZERO COND CODE                     099 05980019
         BNZ   BADIO     YES - GO TO ABEND ROUTINE                  099 06040019
*****************************                                          06120000
********************************************************************** 06140000
*                                                                    * 06160000
*  AT THIS POINT, CHANGE THE INITIATOR'S PRIORITY TO REFLECT THE     * 06180000
*  PRIORITY OF THE JOB GOTTEN FROM THE QUEUE                         * 06200000
*                                                                    * 06220000
********************************************************************** 06240000
SD061060 EQU   *                                                       06260000
         L     R1,LCTSCTAD         LOAD ADDRESS OF SCT            CR17 06265017
         USING IEFSCT,R1                                          CR17 06270017
         OI    SCTSDP,SCTFSTEP     TURN ON FIRST STEP BIT         CR17 06275017
         SR    R1,R1                    ZERO OUT R1                    06280000
         IC    R1,QMPRI                 MSGLEVEL AND PRIORITY TO R1    06300000
         LA    R0,X'0F'                 LOAD A MASK                    06320000
         NR    R1,R0                    'AND' OUT MESSAGE LEVEL        06340000
         STC   R1,LCTQDRTY         PLACE LPMOD VALUE IN LCT       I241 06430018
********************************************************************** 06520000
*        THE FOLLOWING CODE WILL READ THE SYSOUT CLASS DIRECTORY     * 06540000
*        FROM DISK AND FROM THE FIRST ENTRY IN THIS DIRECTORY,WHICH  * 06560000
*        IS THE MSGCLASS ENTRY,WILL BUILD THE MSGCLASS QMANAGER      * 06580000
*        PARAMETER AREA. THE POINTER TO THIS NEW AREA WILL BE STORED * 06600000
*        IN THE LCT.(OFFSET 68)-                                     * 06620000
*  DIRECT SYSOUT (DSO) ROUTINES WILL ALSO SCAN THE SCD LATER ON     099 06626019
*  IN THIS PROGRAM.                                                099 06632019
********************************************************************** 06640000
         LA    R1,REGSAVE+72            Q MGR EXTERNAL PAR AREA        06660000
         XC    0(8,R1),0(R1)           CLEAR AREA TO ZERO              06680000
         ST    R1,QMPCL                STORE POINTER TO EXT PARM AREA  06700000
         LR    R3,R1                   SAVE POINTER                    06720000
         GETMAIN R,LV=176               GETMAIN FOR THE SCD            06740000
*                                      DIRECTORY READ IN AREA        * 06760000
         ST    R1,0(0,R3)              STORE POINTER TO READ IN AREA   06780000
*                                      INTO EXT PARAM AREA           * 06800000
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         MVC   4(3,R3),JCTDSSBA        MOVE SCD DISK ADDR INTO EXT       06820000
*                                      PARAM AREA                      * 06840000
         MVI   QMPOP,X'04'             INDICATE READ TO QMANAGER         06860000
         MVI   QMPCL,X'01'             INDICATE ONE RECORD TO BE READ    06880000
         LR    R4,R1                   SAVE POINTER TO READ.IN AREA      06900000
         LA    R13.REGSAVE              POINTER TO SAVE AREA             06920000
         LR    R1,R9                   LOAD POINTER TO QMPA              06940000
         L     R15,IEFQMRD                                               06960000
         BALR  R14.R15                 BRANCH TO QMANAGER                06980000
         LTR   R15,R15   ANY NON-ZERO COND CODE                      099 06986019
         BNZ   BADIO     YES - GO TO ABEND ROUTINE                   099 06992019
********************************************************************** 07000000
*        THE FOLLOWING CODE WILL GET CORE FOR AND BUILD THE MSGCLASS  * 07020000
*        QMGR PARAM AREA AND ITS ASSOCIATED IOB                       * 07040000
********************************************************************** 07060000
         L     R1,LCTSOQMP               ADDRESS OF SYSOUT QUEUE         07080000
*                                        MANAGER PARAMETER AREA          07100000
         XC    0(36,R1),0(R1)          CLEAR GOTTEN AREA                 07120000
         MVC   QMWTQ2(4),QMWTQ1    MOVE TRK STACK INFO ADDR FROM         07140000
*                                        MAIN QMPA TO ALTERNATE ONE      07160000
         MVC   9(3,R1),1(R4)           MOVE THE QMFLT AND QMTST FIELDS   07180000
*                                      FROM THE MSGCLASS SYSOUT CLASS *  07200000
*                                      DIRECTORY INTO THE MSGCLASS    *  07220000
*                                      QMNGR PARAM AREA BEING BUILT   *  07240000
         MVC   14(1,R1),4(R4)          MOVE QMNOT FIELD INTO QMPA        07260000
         MVC   20(2,R1),5(R4)          MOVE QMTID FIELD INTO QMPA        07280000
         OI    17(R1),X'20'            INDICATE INITIATOR QMPA     994   07300000
         LR    R3,R1                   SAVE POINTER TO QMPA              07320000
********************************************************************** 07340000
*        GET CORE FOR, BUILD AND INITIALIZE THE IOB                   * 07360000
********************************************************************** 07380000
         LA    R0,QIOBL+4              LENGTH OF ECB/IOB+4               07400000
         LA    R14,TCORE                GETCORE IN SUBPOOL 253           07420000
         SLL   R14,24                   SHIFT TO HIGH ORDER BYTE         07440000
         OR    R0,R14                   OR INTO LENGTH REGISTER          07460000
         LR    R5,R0                    SAVE SUBPOOL NO. AND LENGTH      07480000
         GETMAIN R,LV=(0)              GET CORE FOR ECB/IOB              07500000
         ST    R5,0(R1)                SAVE SUBPOOL AND LENGTH OF        07520000
*                                       ECB/IOB IN PRIOR 4 BYTES         07540000
         LA    R5,4(R1)                ADDR OF ECB/IOB                   07560000
         ST    R5,28(0,R3)             STORE ADDR IN QMEIA FIELD OF      07580000
*                                      QMGR PARAM AREA                 * 07600000
         MVC   0(QIOBL,R5),QMECB       MOVE BASIC ECB/IOB MAP TO GOTTEN  07620000
*                                      AREA                            * 07640000
         ST    R5,QIOBA(R5)            SET ECB ADDR INTO IOB             07660000
         LA    R1,QIOBC(R5)            STORE ADDR OF CCW1 INTO           07680000
         ST    R1,QIOBB(R5)                        IOB                   07700000
         MVC   QIOBD+1(3,R5),QIOBB+1(R5)    AND INTO CCW2 FIELD          07720000
         LA    R1,QIOBC-5(R5)          ADDR OF IOBSEEK FLD + 3           07740000
         ST    R1,QIOBC(R5)                INTO THE IOB                  07760000
         OI    QIOBC(R5),QMCOP                                           07780000
         L     R1,CVTPTR                GET  CVT  PTR                    07800000
         USING CVTDSECT,R1              ADDRESS THE CVT                  07820000
         L     R1,CVTJOB                ADDR OF SCHEDULER DCB            07840000
         ST    R1,QIOBDCB(R5)           STORE DCB ADDR IN IOB SLOT       07860000
         DROP  R1                                                        07880000
*                                                                    099 07880519
* * * * * * * * * DETERMINE IF DIRECT SYSOUT (DSO) IS TO               099 07881019
*                 BE INVOKED FOR THIS JOB.                             099 07881519
*                                                                      099 07882019
         TM    LCTOPSW2,LCTDSOF  IS DSO SURPRESSED BY L-SHAPE          099 07882519
         BO    NODSO                YES - BYPASS DSO TESTS             099 07883019
         L     R1,CVTPTR       LOCATION OF CVT                         099 07883519
         USING CVTDSECT,R1     CVT BASE                                099 07884019
         L     R1,CVTMSER      ADR OF MASTER SCH DATA AREA             099 07884519
         USING BASE,R1         M/S BASE REG                            099 07885019
         L     R1,BADSO  FIRST DSOCB ADR                               099 07885519
         DROP  R1                                                      099 07886019
         LA    R1,NO(,R1)      CLEAR H/O                               099 07886519
         LTR   R1,R1           ANY ADR TO DSOCB CHAIN                  099 07887019
         BZ    NODSO           NO-BYPASS ALLOCATION OF DSOCB'S         099 07887519
*                                                                      099 07888019
* * * * * * * * * FOLLOWING CODE IS INCASE THE DSO ROUTINE IS          099 07888519
*                 EVER MADE A SEPERATE MODULE SINCE CODE IS ALSO       099 07889019
*                 SIMILAR FOR IEFSD511 IN MFT.                         099 07889519
*                                                                      099 07890019
         L     R1,QMPCL  GET QMGR EXTERNAL PARM LIST                   099 07890519
         ST    R4,NO(,R1)      ADR OF SCD INTO PARM LIST FOR QMGR      099 07891019
         MVC   LCTPARM1(N4),IEFQMRD      ADR OF Q MGR RD/WR            099 07891519
         LA    R13,REGSAVE     REG SAVE AREA                           099 07892019
         LR    R1,R10          ADR OF LOT                              099 07892519
         L     R15,DSOVCON     ADR OF DSO SELECT ROUTINE               099 07893019
         BALR  R14,R15         BRANCH TO DSO SELECT ROUTINE            099 07893519
*                                                                      099 07894019
         LTR   R15,R15    ANY I/O ERRORS                               099 07894519
         BNZ   BADIO      YES - GO TO ABEND                            099 07895019
*                                                                      099 07895519
NODSO    EQU   *                                                       099 07896019
*                                                                      099 07896519
         LR    R1,R4                    LOAD POINTER TO SCD AREA           07900000
         FREEMAIN R,LV=176,A=(1)         FREE SCD CORE                     07920000
*********************************************************************** 07940000
*                                                                     * 07960000
* INITIALIZE TIMER WORK AREA FOR THE JOB,JOBLIB DCB PTR,QMOSC FIEL CR17 07970017
* IN QMPA,AND STEP NO. IN LCT.                                     CR17 07980017
*                                                                     * 08000000
*********************************************************************** 08020000
*                                                                       08040000
         XC    LCTTMWRK(16),LCTTMWRK     ZERO TIMER WORK AREA           08060000
         XC    LCTJOBLB,LCTJOBLB         ZERO THE JOBLIB POINTER        08080000
         XC    QMOSC(1),QMOSC            ZERO OUT QMOSC  FIELD IN Q CR17 08086017
         MVC   LCTSNUMB(1),JCTSNUMB      MOVE STEP NO. FROM JCT TO  CR17 08092017
*                                                                       08100000
*********************************************************************** 08120000
*                      DATA SET INTEGRITY CODE                          08140000
*                                                                       08160000
* FUNCTION:1.TO READ THE DATA SET ENQ TABLE PREPARED BY THE INTERPRETER 08180000
*          2.WRITE A NEW TABLE WITHOUT DUPLICATES FOR USE IN IEFSD166   08200000
*          3.TO PREPARE AN ENQ PARAMETER LIST FOR USE IN IEFSD102.      08220000
*                                                                       08240000
*********************************************************************** 08260000
*                                                                       08280000
         USING DSNIN,R4                                                 08300000
DIMODULE XC    LCTPARM1,LCTPARM1             CLEAR TO ZERO              08301019
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         USING IEFCSCB,R1          CSCB ADDRESSABILITY            M4351 08302019
         L     R1,LCTQDRTY         ADDRESS OF CSCB                M4351 08303019
         TM    CHSWT,CHDSI         IS DATA SET INTEGRITY WANTED   M4351 08304019
         BNO   WANTDSI             YES, BRANCH                    M4351 08305019
         XC    JCTDETDA(D3),JCTDETDA    NO, ZERO SO NO DEQ LATER  M4351 08306019
         B     SD061200            BYPASS DATA SET INTEG PROC     M4351 08307019
WANTDSI  EQU   *                                                  M4351 08308019
         TM    JCTJSTAT,INCMSTS    HAS JOB BEEN CANCELLED         M4351 08309019
         BNO   GODSI               NO  -  GO SET UP DSI           M4351 08310019
         XC    JCTDETDA(D3),JCTDETDA    ZERO SO NO DEQ LATER      M4351 08311019
         B     SD061200            BYPASS DATA SET INTEGRITY      M4351 08312019
GODSI    EQU   *                                                  M4351 08313019
         OC    JCTDETDA(3),JCTDETDA         IF TTR PARM EQ ZERO,THERE   08340000
         BZ    SD061200                     ARE NO DSNAMES FOR JOB      08360000
*                                                                       08380000
         XC    QEXPARM(40),QEXPARM          CLEAR WORK AREAS            08400000
         GETMAIN R,LV=368                   DSNAME I/O AREAS            08420000
*                                           AND TREE-BUD AREA           08440000
         LR    R4,R1                        SAVE POINTER TO I/O AREA    08460000
*                                                                       08480000
* INITIALIZE PARAMETER LIST FOR TREE ROUTINES                           08500000
         XC    BUD,BUD                  CLEAR TO ZERO                   08520000
         LA    R3,BUD                                                   08540000
         ST    R3,TREE                      ADDR OF BUD                 08560000
         MVI   TREE,X'02'                   HIGH ORDER BYTE             08580000
         LA    R2,TREE-8                                                08600000
         ST    R2,TBLPARM                   STORE IN TBUILD PARM LIST   08620000
*                                                                       08640000
         XC    OCTTR(14),OCTTR              CLEAR OUTPUT FIELDS         08660000
         MVI   OTABID,X'0F'                 TABLE ID IN OUTPUT RECORD   08680000
*                                                                       08700000
*     SETUP Q MANAGER PARAMETERS AND READ                               08720000
         LA    R3,QEXPARM                                               08740000
         ST    R3,QMPCL                     STORE ADDR IN EXT PARM AREA 08760000
         MVC   QTTR,JCTDETDA                STORE TTR FOR 1ST READ      08780000
         LA    R2,DSTART                    ADDR OF 1ST OUTPUT RECORD   08800000
SD061070 ST    R4,QEXPARM                   POINTER TO INPUT AREA       08820000
         MVI   QMPOP,X'04'                  INDICATE READ TO QMGR       08840000
         MVI   QMPCL,X'01'                  INDICATE ONE REC TO BE READ 08860000
         LA    R13,REGSAVE                  POINTER TO SAVE AREA        08880000
         LR    R1,R9                        POINTER TO QMPA             08900000
         L     R15,IEFQMRD                                              08920000
         BALR  R14,R15                      BRANCH TO QMANAGER          08940000
         LTR   R15,R15   ANY NON-ZERO COND CODE                     099 09000019
         BNZ   BADIO     YES - GO TO ABEND ROUTINE                  099 09060019
OKRET    EQU   *                                                        09120000
         OC    TTRBUF1,TTRBUF1              TEST FOR ZERO TTR           09140000
         BZ    SD061080                                                 09160000
         MVC   TTRBUF2,ICTTR                MOVE CURRENT TTR TO BUFFER2 09180000
         B     SD061090                                                 09200000
SD061080 MVC   TTRBUF1,ICTTR                MOVE CURRENT TTR TO BUFFER1 09220000
SD061090 LA    R5,14(R4)                    ADDR OF 1ST CHAR OF 1ST     09240000
*                                           RECORD IN BLOCK             09260000
SD061100 LA    R6,1(R5)                                                 09280000
         MVC   LENGTH+1(1),1(R5)            STORE LGTH OF CURNT DSNAME  09300000
         AH    R6,LENGTH                    R6-ADDR OF LAST CHAR OF DSN 09320000
         CLI   1(R5),X'00'                  ZERO LENGTH INDICATES END   09340000
         BE    SD061150                     OFBLOCK                     09360000
         LA    R5,2(R5)                     R5 NOW POINTS TO 1ST CHAR   09380000
*                                           OF DSNAME                   09400000
         LA    R1,TBLPARM                   ADDR OF TBUILD PARM LIST    09420000
         STM   R5,R6,DSNBEG                 STORE TBUILD PARAMETERS     09440000
         LA    R13,REGSAVE                                              09460000
         L     R15,TBLVCON                                              09480000
         BALR  R14,R15                      BRANCH TOIEFDSTBL           09500000
*********************************************************************** 09520000
*                                                                       09540000
*              UPON RETURN FROM IEFDSTBL,R1 CONTAINS ADDR-8 OF A        09560000
*              4 BYTE AREA CONTAINING THE ADDR OF A 4 BYTE AREA         09580000
*              WHICH CONTAINS:                                          09600000
*                       BYTE 0-X'80' IF SHARED SRR                      09620000
*                              X'00' IF EXCLUSIVE SRR                   09640000
*                       BYTE 1+2-NOT USED                               09660000
*                       BYTE 3-CONTAINS ZERO IF DSNAME INTRODUCED TO    09680000
*                              IEFDSTBL WAS NEW                         09700000
*********************************************************************** 09720000
         BCTR  R5,R0                                                    09740000
         BCTR  R5,R0                    DECREMENT R5 BY 2               09760000
         L     R1,8(R1)                     LOAD ADDR OF 4BYTE BUD      09780000
         OC    3(1,R1),3(R1)                TEST FOR NEW DSNAME         09800000
         BZ    SD061110                     BRANCH IF TRUE              09820000
         NC    0(1,R1),0(R5)                UPDATE E/S ATTRIBUTE        09840000
         B     SD061130                                                 09860000
SD061110 MVC   0(1,R1),0(R5)                STORE 1ST E/S ATTRIBUTE     09880000
         MVI   3(R1),X'01'                  CHANGE DSNAME STATUS TO OLD 09900000
SD061120 LH    R3,LENGTH                   *R3 WILL CONTAIN SPACE       09920000
         LA    R3,2(R3)                     NEEDED IN OUTPUT BLOCK      09940000
         LA    R7,OEND                     *R7 WILL CONTAIN REMAINING   09960000
         SR    R7,R2                        SPACE                       09980000
         CLR   R3,R7                                                    10000000
         BH    SD061170                     BRANCH IF NO SPACE          10020000
         BCTR  R3,R0                        SUB 1 FROM LENGTH(EXECUTE   10040000
*                                           INSTRUCTION REQUIRES ONE    10060000
*                                           LESS THAN ACTUAL LENGTH     10080000
         EX    R3,SD061140                  MOVE DSNAME TO OUTPUT AREA  10100000
         LA    R2,1(R2,R3)                  INDEX R2 TO NEXT OUTPUT REC 10120000
         LH    R3,LENGTH                    INCREASE DSNAME CHAR COUNT  10140000
         A     R3,OCHAR                     BY LENGTH OF LAST DSNAME    10160000
         ST    R3,OCHAR                                                 10180000
         LH    R3,OCNT                      INCREASE DSNAME COUNT BY 1  10200000
         LA    R3,1(R3)                                                 10220000
         STH   R3,OCNT                                                  10240000
SD061130 LA    R7,172(R4)                   TEST FOR ANOTHER POSSIBLE   10260000
         CLR   R6,R7                        RECORD IN BLOCK             10280000
         BH    SD061150                     BRANCH IF NO POSSIBILITY    10300000
         LA    R5,1(R6)                     R5-ADDR OF NEXT RECORD      10320000
         B     SD061100                                                 10340000
SD061140 MVC   0(0,R2),0(R5)                OBJECT OF EX INSTRUCTION    10360000
SD061150 OC    ILTTR,ILTTR                  END OF DSNAME ENQ TABLE IF  10380000
         BZ    SD061160                     LAST TTR FIELD IS ZERO      10400000
         MVC   OTTR,ILTTR                   MOVE NEXT TTR TO EXT PARM   10420000
*                                           AREA                        10440000
         B     SD061070                                                 10460000
SD061160 MVI   TESTEOD,X'FF'                SET END OF DATA INDICATOR   10480000
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SD061170 LA    R7,OEND-2                    CHECK FOR INSERTION OF TWO  10500000
         CLR   R2,R7                        ZEROS AT END OF BLOCK       10520000
         BH    SD061180                                                 10540000
         XC    0(2,R2),0(R2)                INSERT ZEROS                10560000
SD061180 LA    R3,OCTTR                     ADDR OF OUTPUT AREA         10580000
         ST    R3,OEXPARM                   STORE ADDR IN EXT PARM AREA 10600000
         MVC   QTTR,TTRBUF1                 STORE TTR  IN EXT PARM AREA 10620000
         MVC   OCTTR,QTTR                   CURRENT TTR FIELD IN OUTPUT 10640000
         MVI   QMPOP,X'03'                  INDICATE WRITE TO QMGR      10660000
         MVI   QMPCL,X'01'                  INDICATE ONE REC TO BE READ 10680000
         LA    R13,REGSAVE                  POINTER TO SAVE AREA        10700000
         LR    R1,R9                        POINTER TO QMPA             10720000
         L     R15,IEFQMRD                                              10740000
         BALR  R14,R15                      BRANCH TO QMANAGER          10760000
         LTR   R15,R15   ANY NON-ZERO COND CODE                     099 10770019
         BZ    OKRET1    NO - CONT PROCESSING                       099 10780019
*                                                                   099 10790019
BADIO    EQU   *         QMGR I/O ERRORS ENTER HERE                 099 10800019
*                                                                   099 10810019
************************ I/O ERROR                                      10860000
         LA    R1,X'080'                                                10880000
         SLA   R1,12                                                    10900000
         ABEND (1),DUMP                                                 10920000
OKRET1   EQU   *                                                        10940000
         MVC   OLTTR,OCTTR                  SETUP OLTTR FOR NEXT WRITE  10960000
         MVC   TTRBUF1,TTRBUF2              PUT NEXT TTR IN BUFFER 1    10980000
         XC    TTRBUF2,TTRBUF2              CLEAR  TTR BUFFER 2         11000000
         CLI   TESTEOD,X'FF'                TEST FOR END OF DATA        11020000
         BE    SD061190                                                 11040000
         LA    R2,OSTART                    ADDR OF 1ST OUTPUT RECORD   11060000
         B     SD061120                                                 11080000
*                                                                       11100000
* PREPARE FOR ENTRY TO IEFDSLST                                         11120000
TBLVCON  DC    V(IEFDSTBL)                  TBUILD                      11140000
LSTVCON  DC    V(IEFDSLST)                  TSTRIP                      11160000
MAJNAME  DC    C'SYSDSN  '                  ENQ MAJ RESOURCE NAME       11180000
*                                                                       11200000
SD061190 MVC   CHARSAV(6),DCHAR             S AVE DSNAME COUNTS         11220000
         MVC   JCTDETDA(3),QTTR             STORE TTR FOR USE IN        11240000
*                                           IEFSD166 DEQ FUNCTION       11260000
         LR    R1,R4                        FREE I/O AREAS              11280000
         FREEMAIN R,LV=352,A=(1)                                        11300000
*                                                                       11320000
* SETUP PARAMETERS FOR IEFDSLST AND GET CORE FOR ENQ PARM LIST          11340000
*                                                                       11360000
         LA    R3,12(0,0)                   DETERMINE CORE NEEDED FOR   11380000
         MH    R3,CNTSAV                    ENQ PARM LIST               11400000
         A     R3,CHARSAV                   *                           11420000
         LA    R3,8(R3)                     *                           11440000
         LR    R0,R3                        LENGTH OF ENQ PARM LIST     11460000
         LA    R2,255(0,0)                  SUBPOOL NO. 255             11480000
         SLL   R2,24                        PLACE IN HIGH ORDER BYTE    11500000
         OR    R0,R2                        OF LENGTH REGISTER          11520000
         ST    R0,LCTPARM2                  SAVE FOR USE IN IEFSD102    11540000
         GETMAIN R,LV=(0)                   ENQ PARM LIST               11560000
         ST    R1,DSNBEG                    POINTER TO ENQ PARM LIST    11580000
*                                           AREA FOR IEFDSLST           11600000
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         MVC   0(8,1),MAJNAME                 1ST 8BYTES ARE ENQ MAJ NAME 11620000
         S     R3,CHARSAV                                                 11640000
         AR    R3,R1                                                      11660000
         ST    R3,DSNEND                      ADDR OF 1ST DSNAME ENTRY    11680000
         ST    R1,LCTPARM1                    POINTER TO ENQ PARM LIST    11700000
*                                             FOR USE IN IEFSD102         11720000
         LA    R1,TBLPARM                     ADDR OF IEFDSLST PARM LIST  11740000
         LA    R13,REGSAVE                    POINTER TO SAVE AREA        11760000
         L     R15,LSTVCON                                                11780000
         BALR  R14,R15                        BRANCH TO IEFDSLST          11800000
********************************************************************** 11820000
*                                                                         11840000
* UPON RETURN FROM IEFDSLST ROUTINE,THE ENQ PARAMETER LIST HAS BEEN       11860000
* BUILT FOR USE IN IEFSD102. A POINTER TO IT IS STORED IN                 11880000
* LCTPARM1 AND ITS LENGTH AND SUBPOOL ARE STORED IN LCTPARM2.             11900000
* IEFDSLST BUILDS THE ENQUEUE PARAMETER LIST TO ISSUE AN          A21364 11903019
* UNCONDITIONAL ENQUEUE. CODE CHANGES MADE TO IEFSD102 FOR APAR   A21364 11906019
* 21364 REQUIRE THAT A CONDITIONAL ENQUEUE BE ISSUED. THE         A21364 11909019
* FOLLOWING CODE CHANGES THE ENQUEUE PARMS TO ISSUE A             A21364 11912019
* CONDITIONAL ENQUEUE.                                            A21364 11915019
*                                                                         11920000
********************************************************************** 11940000
         L     R1,LCTPARM1              ADDRESS Q PARM LIST       A21364 11941019
         LA    R1,D8(R1)                ADDRESS 1ST ENTRY         A21364 11942019
         USING QLIST,R1                 ENQ LIST BASE             A21364 11943019
SD061193 EQU   *                        SETUP FOR COND ENQ        A21364 11944019
         OI    QATT,SYSTEM+USE          ENQ SYSTEM, RET = USE      M4008 11945019
         CLI   QLSTEND,LSTEND           END OF LIST?              A21364 11946019
         BE    SD061196                 YES - BRANCH              A21364 11947019
         LA    R1,QENTLGTH(R1)          INCREMENT TO NEXT ENTRY   A21364 11948019
         B     SD061193                 PROCESS NEXT ENTRY        A21364 11949019
SD061196 EQU   *                        CONTINUE PROCESSING       A21364 11950019
         LA    R1,TREE                        FREE TREE                   11960000
         FREEMAIN R,LV=8,A=(1)                                            11980000
*                                                                         12000000
SD061200 LR    R1,R10                         LCT ADDRESS                 12020000
         L     R15,IEFSD62V             ADDRESS OF IEFSD062               12040000
         BR    R15                      GO TO IEFSD062                    12060000
IEFSD60V DC    V(IEFSD060)                                                12070015
IEFSD62V DC    V(IEFSD062)                                                12080000
IEFQMRD  DC    V(IEFQMRAW)                                                12100000
IEFQMVCN DC    V(IEFQMDQ2)                                                12120000
DSOVCON  DC    V(IEFDSOSL)     DSO SELECT DSOCB ROUTINE              099 12130019
********************************************************************** 12140000
QIOBA    EQU   8                                                          12160000
QIOBB    EQU   20                                                         12180000
QIOBDCB  EQU   24                       DCB ADDR OFFSET FROM ECB/IOB      12200000
QIOBC    EQU   44                                                         12220000
QIOBD    EQU   52                                                         12240000
QMCOP    EQU   X'31'                                                      12260000
DISPLACE EQU   760
ZERO     EQU   0                   DISPLACEMENT                     I272 12260619
ONE      EQU   1                   DISPLACEMENT                     I272 12261219
D3       EQU   3                   DISPLACEMENT                     I254 12261819
D4       EQU   4                   DISPLACEMENT                     I272 12262419
D6       EQU   6                   DISPLACEMENT                     I272 12263019
D7       EQU   7                   DISPLACEMENT                     I272 12263619
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D8       EQU   8                   DISPLACEMENT                    I272 12264219
D0       EQU   0                                                 A27668 12264319
D1       EQU   1                                                 A27668 12264419
D16      EQU   16                  DISPLACEMENT                   M4339 12264519
WTPLEN   EQU   16                  WTPCB LENGTH                    I254 12264819
BLANK    EQU   X'40'               USED TO PAD WITH BLANKS         I272 12265419
FOXFOX   EQU   X'FF'               INSERT UNIQUE NONZERO ID        I272 12266019
IOERR    EQU   4                   I/O ERROR RETURN CODE           I272 12266619
         DS    0F                                                  I254 12267219
M253     DC    X'FD000000'         MASK FOR SP253                  I254 12267819
HOUR24   DC    AL3(8640000)                                        I272 12268419
         EJECT                                                          12270017
         XDAP  QMECB,RI,QMECB,,,,,MF=L    ECB/IOB BASIC PATTERN         12280000
QMPTE    EQU   *                      END OF PATTERN IOB                12300000
QIOBL    EQU   QMPTE-QMECB            LENGTH OF PATTERN IOB             12320000
QMNCVCON DC    V(IEFQMUNC)                                              12340000
POSTBIT  EQU   X'40'                                                    12360000
TCORE    EQU   253                                                      12380000
         EJECT                                                          12390017
*********************************************************************** 12390919
*          ENQ/DEQ MACRO PARAMETER LIST                             ' * 12391819
*********************************************************************** 12392719
IEFSD61A ENQ   (IEFSQCBS,IEFQ60CB,E,2,SYSTEM),MF=L   ENQ/DEQ PARM LIST 12393619
IEFSQCBS DC    C'SYSIEFSD'              MAJOR NAME                      12394519
IEFQ60CB DC    C'06'                    MINOR NAME STOP INIT.           12395419
IEFSD61B ENQ   (IEFSQCBS,IEFQ20CB,E,2,SYSTEM),MF=L  ENQ/DEQ PARM LIST   12396319
IEFQ20CB DC    C'Q2'                         MINOR NAME ASGN-DEL Q MNGR 12397219
IEFSD61C ENQ   (IEFSGCBS,IEFBATRM,E,5,SYSTEM),MF=L                      12398119
IEFSGCBS DC    C'SYSJMPCH'                                              12399019
IEFBATRM DC    C'BATRM'                                                 12399919
STOPBIT  EQU   X'10'                                                    12400819
MSGAD    DC    A(QMTMSG)           ADDR OF MESSAGE CSECT           0847 12401719
**************************************************************** A21364 12401819
QLIST    DSECT                          ENQ, DEQ PARAMETER LIST  A21364 12401919
*                                       ANY NUMBER OF ENTRIES    A21364 12402019
*                                       EACH ENTRY IS DESCRIBED  A21364 12402119
*                                       AS FOLLOWS:              A21364 12402219
QLSTEND  DC    X'00'                    END OF LIST INDICATOR    A21364 12402319
LSTEND   EQU   X'FF'                    FF INDICATES END OF LIST A21364 12402419
QMINLGTH DC    X'00'                    MINOR NAME LENGTH        A21364 12402519
QATT     DC    B'00000000'              ENQ OR DEQ ATTRIBUTES    A21364 12402619
SYSTEM   EQU   X'40'                    SYSTEM IS ISSUING NQ(DQ) A21364 12402719
HAVE     EQU   X'01'                    RET = HAVE               A21364 12402819
USE      EQU   X'03'                    RET = USE                A21364 12402919
QRETCDE  DC    X'00'                    RETURN CODE              A21364 12403019
QMAJOR   DC    A(*)                     ADDRESS OF MAJOR NAME    A21364 12403119
QMINOR   DC    A(*)                     ADDRESS OF MINOR NAME    A21364 12403219
QENTLGTH EQU   *-QLSTEND                LENGTH OF ONE ENTRY      A21364 12403319
**************************************************************** A21364 12403419
QMTMSG   CSECT                                                     0847 12403519
         DS    0D                                                  0847 12404419
         PRINT DATA                                              A27668 12404519
WTO429   WTO   'IEF429I INITIATOR '''' WAITING FOR WORK',MF=L,   A27668*12404619
               ROUTCDE=(2),DESC=(4)                              A27668 12404719
         PRINT NODATA                                            A27668 12404819
WTO429EN EQU   *-WTO429        LENGTH OF ENTIRE WTO              A27668 12404919
WTO429EX EQU   WTO429EN+D8  SIZE OF WTO AND INIT ID              A27668 12405019
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*                                                                A27668 12405119
*   N O T E  -  IF WTO 'WTO429' CHANGES, CHECK EQU 'WTO429A' TO  A27668 12405219
*               ASSURE ITS VALUE IS STILL CORRECT                A27668 12405319
*                                                                A27668 12405419
WTO429A  EQU   23  NUMBER OF BYTES IN 1ST HALF OF WTO 'WTO429'   A27668 12405519
*                  UP TO AND INCLUDING THE 1ST QUOTE OF          A27668 12405619
*                  GENERATED TEXT.  INCLUDE 4 BYTE HEADER IN CT  A27668 12405719
*                                                                A27668 12405819
WTO429B  EQU   WTO429EN-WTO429A     LNG OF 2ND HALF OF WTO MSG   A27668 12405919
*                                   STARTING WITH 2ND QUOTE      A27668 12406019
*                                   INCLUDING MCS DATA.          A27668 12406119
***********************************************************        0847 12407119
*                                                                       12408019
         EJECT                                                      099 12408919
IEFDSOSL CSECT                                                      099 12409819
*                                                                   099 12410719
* * * * * * * * THIS DIRECT SYSOUT (DSO) ROUTINE FIRST              099 12411619
*               BUILDS A SYSOUT ENTRY BLOCK OF ALL SYSOUT           099 12412519
*               CLASSES THIS JOB HAS CALLED FOR IN ITS JCL          099 12413419
*               FROM THE SYSOUT CLASS DIRECTORY (SCD). THIS         099 12414319
*               BLOCK WILL BE SEARCHED LATER IN THE ROUTINE.        099 12415219
*               THE NEXT FUNCTION IS TO SEARCH THE DIRECT           099 12416119
*               SYSOUT CONTROL BLOCK (DSOCB) CHAIN TESTING          099 12417019
*               EACH DSOCB TO SEE IF IT'S ELIGIBLE FOR THIS         099 12417919
*               JOB. THE DEQUEUED JOB'S JOB CLASS AND THE           099 12418819
*               SYSOUT ENTRY BLOCK WILL BE USED TO SELECT           099 12419719
*               THE DSOCB'S.  SELECTION IS INDICATED BY             099 12420619
*               PLACING THE PROBLEM PROGRAMS STORAGE PROTECT        099 12421519
*               KEY FROM THE JOBS JCT (JCTJSRNO) INTO THE           099 12422419
*               SELECTED DSOCB.  IF ONE OR MORE DSOCBS WERE         099 12423319
*               SELECTED BIT 6 IN JCTRSW2 (JCT) WILL BE TURNED ON TO099 12424219
*               INDICATE TO OTHER DSO ROUTINES THAT THERE ARE       099 12425119
*               ALLOCATED DSOCB'S FOR THE JOB.                      099 12426019
*                                                                   099 12426919
*              REGISTER ONE POINTS TO LOT/LCT AREA                  099 12427819
*              LCTPARM1 CONTAINS ADR OF QMGR READ/WRITE ROUTINE     099 12428719
*              EPA POINTED TO BY THE QMPCL IN THE INPUT QMPA HAS    099 12429619
*              BEEN INITILIZED WITH THE CORE ADR OF THE READ IN SCD.099 12430519
*                                                                   099 12431419
         SAVE  (14,12)         SAVE CALLERS REGS                    099 12432319
*                                                                   099 12433219
         LR    R11,R1          ADR OF LCT/LOT AREA                  099 12434119
         USING IEFLOT,R11                                           099 12435019
*                                                                   099 12435919
         BALR  R12,R0          SET    MODULE BASE REG               099 12436819
         USING *,R12                                                099 12437719
         B     DSOGO                                                099 12438619
         DC    X'CCCC'                                              099 12439519
         DC    C'IEFDSOSL'                                          099 12440419
         DC    X'06201969'                                          099 12441319
         DC    X'CCCC'                                              099 12442219
DSOGO    DS    0H                                                   099 12443119
*                                                                   099 12444019
         LA    R0,SAVARASZ+SYSIZE  SIZE OF REG SAVEAREA             099 12444919
*                                  AND SYSOUT BLOCK AREA            099 12445819
*                                  FOR GETMAIN                      099 12446719
         GETMAIN R,LV=(0)      GET REG SAVE AND SYSOUT BLOCK AREA   099 12447619
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*                                                                   099 12448519
         XC    NO(SAVARASZ+SYSIZE,R1),NO(R1) CLEAR ENTIRE AREA      099 12449419
         ST    R13,N4(,R1)      SAVE CALLERS REG SAVEAREA ADR       099 12450319
         ST    R1,N8(,R13)      MY REG SAVEAREA ADR INTO CALLERS    099 12451219
*                              REG SAVEAREA                         099 12452119
         LR    R13,R1    MY REG SAVEAREA AND SYSOUT BLOCK AREA      099 12453019
         USING SAVESYS,R13     SET BASE                             099 12453919
*                                                                   099 12454819
         L     R9,LCTJCTAD     JCT CORE ADR                         099 12455719
         USING IEFJCT,R9       SET BASE                             099 12456619
*                                                                   099 12457519
         LA    R10,QMGR1       ADR OF INPUT QMPA                    099 12458419
         USING IOPARAMS,R10     SET BASE                            099 12459319
*                                                                   099 12460219
*                                                                   099 12461119
         L     R7,QMPCL  QMGR EXTERNAL PARM ADR                     099 12462019
         L     R7,N0(,R7) ADR OF SCD AREA USED BY CALLING PROG      099 12462919
         USING SCDAREA,R7      SET BASE FOR SCD                     099 12463819
         MVI   SCDPAD,HEXFF    CONTINUATION FLAG IN 1ST SCD         099 12464719
*                              AFTER PROBABLE 24TH ENTRY            099 12465619
         DROP  R7                                                   099 12466519
*                                                                   099 12467419
* * * * * * * * * BUILD SYSOUT ENTRY BLOCK FROM SCD                 099 12468319
*                                                                   099 12469219
         LR    R2,R7           INDEX REG FOR SCD                    099 12470119
         USING SCDAREA,R2      SET SCD BASE                         099 12471019
         LA    R4,SYSCLS       SYSOUT ENTRY BLOCK AREA              099 12471919
         USING SYSCLS,R4       SET SYSOUT BLOCK BASE                099 12472819
         LA    R3,SYSNO        MAX ENTRIES LOOP REG                 099 12473719
*                                                                   099 12474619
DS02A    EQU   *                                                    099 12475519
         TM    SCDCLS,HEXFF    TEST FOR END OF ENTRIES/END OF       099 12476419
*                              FIRST SCD/SYSOUT CLASS ENTRY         099 12477319
         BO    DS02C     ALL ONES - END OF FIRST SCD, READ IN       099 12478219
*                                   NEXT SCD IF ONE AND CONTINUE    099 12479119
         BZ    DS03     ALL ZERO - END OF ENTRIES IN SCD            099 12480019
*                                                                   099 12480919
*                        MIXED - SAVE SYSOUT CLASS                  099 12481819
*                                                                   099 12482719
         MVC   SYSCLS,SCDCLS  SAVE SCD SYSOUT CLASS                 099 12483619
*                                                                   099 12484519
         LA    R2,SCDENTRY(,R2)    INCREASE SCD BASE REG            099 12485419
         LA    R4,SYSENTRY(,R4)    INCREASE SYSOUT BLOCK BASE       099 12486319
         BCT   R3,DS02A            LOOP LIMITER                     099 12487219
         B     DS03      END OF ENTRIES IN SCD                      099 12488119
         DROP  R2,R4                                                099 12489019
*                                                                   099 12489919
* * * * * * * * * READ IN NEXT SCD IF ONE                           099 12490819
*                                                                   099 12491719
DS02C    EQU   *                                                    099 12492619
         USING SCDAREA,R7      SET SCD BASE                         099 12493519
         MVI   SCDNXT+N3,N0    ZERO L/O OF TTR BEFORE TEST          099 12494419
         L     R2,SCDNXT       GET TTR OF NEXT SCD                  099 12495319
         DROP  R7                                                   099 12496219
         LTR   R2,R2           IS THERE A TTR                       099 12497119
         BZ    DS03      NO - END OF ENTRIES IN SCD                 099 12498019
*                                                                   099 12498919
*                        YES - READ IN NEXT SCD                     099 12499819
         L     R1,QMPCL  QMGR EXTERNAL PARM ADR                     099 12500719
         ST    R2,N4(,R1) TTR OF SCD TO BE READ                     099 12501619
         ST    R7,N0(,R1) READ IN AREA FOR NEXT SCD (SAME AS        099 12502519
*                        1ST SCD)                                   099 12503419
         MVI   QMPOP,QMREAD  READ FUNCTION                          099 12504319
         BAL   R6,QMGRRW         GO TO QMGR READ WRITE ROUTINE      099 12505219
         LR    R2,R7                   SCD AREA                     099 12506119
         B     DSO2A         CONTINUE PROCESSING WITH THIS SCD      099 12507019
QMGRRW   EQU   *             QMGR READ WRITE INTERFACE              099 12507919
         MVI   QMPCL,HEX01   READ/WRITE ONE RECORD                  099 12508819
         LR    R1,R10        ADR OF QMGR1                           099 12509719
*                            R13 POINTS TO SAVEAREA                 099 12510619
         L     R15,LCTPARM1  ADR OF QMGR READ/WRITE ROUTINE         099 12511519
         BALR  R14,R15       GO TO QMGR                             099 12512419
*                                                                   099 12513319
         LTR   R15,R15   QMGR ERROR TEST                            099 12514219
         BNZ   QMGRIO    QMGR I/O ERROR                             099 12515119
         BR    R6            RETURN TO CALLER                       099 12516019
*                                                                   099 12516919
*                                                                   099 12517819
*                                                                   099 12518719
*                                                                   099 12519619
DSO3     EQU   *                                                    099 12520519
         LA    R1,SYSNO  MAX ENTRIES IN SYSOUT BLOCK                099 12521419
         SR    R1,R3     LOOP COUNT FROM  MAX ENTRIES               099 12522319
*                        GIVES NUMBER OF SYSOUT CLASSES AVAILABLE   099 12523219
         STC   R1,SYSENTS    SAVE NUMBER OF SYSOUT CLASSES          099 12524119
*                                                                   099 12525019
* * * * * * * * * LOOP THROUGH DSOCB'S USING THE DEQUEUED JOB'S     099 12525919
*                 JOB CLASS AS THE FIRST TEST IN SELECTING DSOCBS   099 12526819
*                                                                   099 12527719
         L     R7,CVTPTR     LOCATION OF CVT                        099 12528619
         USING CVTDSECT,R7   CVT BASE                               099 12529519
         L     R7,CVTMSER    ADR OF MASTER SCH DATA AREA            099 12530419
         USING BASE,R7       M/S BASE REG                           099 12531319
*                                                                   099 12532219
         ENQ   MF=(E,DSOCBNQ)     ENQ ON DSOCB CHAIN                099 12533119
*                                                                   099 12534019
         L     R7,BADSO  FIRST DSOCB ADR                            099 12534919
         USING IEFDSOCB,R7   SET BASE FOR DSOCB                     099 12535819
*                                                                   099 12536719
         LA    R4,L'DSOJCLS  LENGTH OF 'DSOJCLS' FIELD IN DSOCB.    099 12537619
*                            REG WILL ALSO BE USED AS A SWITCH      099 12538519
*                                                                   099 12539419
DSO3B    EQU   *                                                    099 12540319
         LA    R7,N0(,R7)    CLEAR H/O                              099 12541219
         LTR   R7,R7         DSOCB ADR ZERO                         099 12542119
         BZ    DSO5          YES - DO END OF DSOCB PROCESSING       099 12543019
         CLI   DSOID,HEXFD   NO - CHECK FOR DSOCB ID                099 12543919
         BNE   DSO3A         WRONG ID, GET NEXT DSOCB               099 12544819
         TM    DSOKEY,HEXFF  IS THIS DSOCB IN USE                   099 12545719
         BNZ   DSO3A         YES - GET NEXT DSOCB                   099 12546619
         TM    DSOIND1,DSONOOP    NO - IS DSOCB FROZEN              099 12547519
         BNZ   DSO3A     YES - GET NEXT DSOCB                       099 12548419
         TM    DSOIND2,DSOSM IS A STOP/MODIFY PENDING               099 12549319
         BNZ   DSO3A         YES - THEN BYPASS THIS DSOCB           099 12550219
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*                                NO - SET REGS TO EXAMINE DSOCB           099 12551119
*                                JOB CLASSES                              099 12552019
         LA    R2,DSOJCLS        ELIGIBLE JOB CLASSES AREA                099 12552919
         USING DSOJCLS,R2        SET BASE                                 099 12553819
         LPR   R3,R4             LOOP LIMIT - R4 WILL BE NEG IF           099 12554719
*                                ANY DSOCB'S HAVE BEEN SELECTED,          099 12555619
*                                BUT VALUE REMAINS UNCHANGED              099 12556519
*                                                                         099 12557419
DSO3C    EQU   *                                                          099 12558319
         CLI   DSOJCLS,NO        END OF ENTRIES TEST                      099 12559219
         BE    DSO3A             YES - GET NEXT DSOCB                     099 12560119
         CLC   QMTPY,DSOJCLS  JOB'S JOB CLASS VS DSOCB JOB CLASSES        099 12561019
         BE    DSO4        A MATCH - GO TEST SYSOUT CLASS                 099 12561919
*                                                                         099 12562819
         LA    R2,N1(,R2)        INCREASE REG BY ONE                      099 12563719
         BCT   R3,DSO3C          LOOP AGAIN IF MORE ENTRIES               099 12564619
*                                                                         099 12565519
         DROP  R2                                                         099 12566419
*                                                                         099 12567319
DSO3A    EQU   *                                                          099 12568219
         L     R7,DSONXT         GET NEXT DSOCB ADR                       099 12569119
         B     DSO3B             TEST JOB CLASSES IN NEXT DSOCB           099 12570019
*                                                                         099 12570919
*                                                                         099 12571819
* * * * * * * * * A JOB CLASS MATCH HAS OCCURRED SO NOW MATCH THE         099 12572719
*                 DSOCB'S SYSOUT CLASS TO THE SYSOUT BLOCK ENTRIES        099 12573619
*                                                                         099 12574519
DSO4     EQU   *                                                          099 12575419
         LA    R2,SYSCLS         START OF SYSOUT BLOCK TO BE SCANNED      099 12576319
         USING SYSCLS,R2         SET BASE                                 099 12577219
         SR    R3,R3             CLEAR REG                                099 12578119
         IC    R3,SYSENTS        NUMBER OF ENTRIES IN SYSOUT BLOCK        099 12579019
*                                                                         099 12579919
DSO4A    EQU   *                                                          099 12580819
         CLC   DSOSCLS,SYSCLS TEST SYSOUT CLASS                           099 12581719
         BE    DSO4B             EQUAL - MARK DSOCB ALLOCATED             099 12582619
         LA    R2,SYSENTRY(,R2)     UNEQUAL - INCREASE INDEX REG          099 12583519
         BCT   R3,DSO4A          LOOP AGAIN IF MORE ENTRIES               099 12584419
         B     DSO3A             END OF ENTRIES - GET NEXT DSOCB          099 12585319
*                                                                         099 12586219
DSOEX    MVC   SYSCLS(NO),SYSCLS+SYSENTRY     TO SHIFT SYSOUT             099 12587119
*                                           BLOCK UP 1 BYTE               099 12588019
*                                           MOVE INCLUDES ONE BYTE        099 12588919
*                                           PAD AT END OF BLOCK           099 12589819
         DROP  R2                                                         099 12590719
*                                                                         099 12591619
* * * * * * * * * JOB CLASS AND SYSOUT CLASS MATCH HAS OCCURRED           099 12592519
*                 SO MARK DSOCB ALLOCATED FOR THIS JOB AND                099 12593419
*                 STRIKE THE SYSOUT ENTRY FROM THE SYSOUT                 099 12594319
*                 BLOCK TO PREVENT SELECTION OF ANOTHER POSSIBLE          099 12595219
*                 DSOCB OF SAME JOB AND SYSOUT CLASS.                     099 12596119
*                                                                         099 12597019
DSO4B    EQU   *                                                          099 12597919
         MVC   DSOKEY,JCTJSRNO        MOVE PROTECT KEY FROM JCT           099 12598819
*                                     INTO THE DSOCB TO MARK              099 12599719
*                                     IT ALLOCATED (XXXX0000)             099 12600619
         LNR   R4,R4             NEG REG INDICATES ONE OR MORE            099 12601519
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*                                DSOCB'S HAVE BEEN SELECTED            099 12602419
         CLC   DSOSCLS,JCTJMGPO     IS THE MSGCLASS EQUAL TO           099 12603319
*                                      THE DSOCB'S SYSOUT CLASS        099 12604219
         BNE   DS04C            NO - CONT PROCESSING                   099 12605119
         OI    DSOIND1,DSOMSGCL YESTURN ON MSGCLASS BIT IN DSOCB       099 12606019
*                                                                      099 12606919
* * * * * * * * * STRIKE SYSOUT CLASS FROM SYSOUT BLOCK                099 12607819
*                                                                      099 12608719
DS04C    EQU   *                                                       099 12609619
         LA    R3,SYSCLS+(SYSNO*SYSENTRY)-1  END OF SYSOUT BLOCK       099 12610519
         SR    R3,R2            TO GET NUMBER OF BYTES TO BE MOVED     099 12611419
*                               NOTE - A LOW ORDER VALUE ONLY NOW      099 12612319
*                                     EXISTS IN R3                     099 12613219
         EX    R3,DSOEX         SHIFT SYSOUT BLOCK ENTRIES             099 12614119
*                               LEFT ONE BYTE PLUS PAD BYTE            099 12615019
         IC    R3,SYSENTS       PRESENT NUMBER OF ENTRIES IN BLOCK     099 12615919
         BCTR  R3,R0            SUBTRACT ONE                           099 12616819
         STC   R3,SYSENTS       STORE REVISED COUNT                    099 12617719
         LTR   R3,R3            IS COUNT ZERO                          099 12618619
         BZ    DS05             YES - DO END OF DSOCB PROCESSING       099 12619519
         B     DS03A            NO - GO GET NEXT DSOCB                 099 12620419
*                                                                      099 12621319
QMGRIO   EQU   *                                                       099 12622219
         LR    R7,R15     SAVE CONDITION CODE FROM QMGR                099 12623119
         B     DS05B      DO END OF MODULE PROCESSING                  099 12624019
*                                                                      099 12624919
*                                                                      099 12625819
* * * * * * * * * ALL DSOCB'S HAVE BEEN SCANNED AND TESTED,            099 12626719
*                 OR ALL SYSOUT ENTRIES IN THE SYSOUT BLOCK            099 12627619
*                 HAVE BEEN PROCESSED.                                 099 12628519
*                 NOW TEST IF ANY DSOCB'S WERE SELECTED.               099 12629419
*                 IF YES MARK THE JCT TO INDICATE THIS,                099 12630319
*                 RELEASE SAVE AND WORK AREAS AND RETURN               099 12631219
*                 TO CALLER.                                           099 12632119
*                                                                      099 12633019
DS05     EQU   *                                                       099 12633919
         LTR   R4,R4            TEST IF ANY DSOCB'S WERE SELECTED      099 12634819
         BP    DS05A            PLUS - NO DSOCB'S SELECTED             099 12635719
         OI    JCTRSW2,JCTDSOJB     NEG- ONE OR MORE DSOCB'S WERE      099 12636619
*                                   SELECTED                           099 12637519
DS05A    EQU   *                                                       099 12638419
         SR    R7,R7      CLEAR TEMP CONDITION CODE REG                099 12639319
*                                                                      099 12640219
         DEQ   MF=(E,DSOCBNO)       DEQ ON DSOCB CHAIN                 099 12641119
*                                                                      099 12642019
DS05B    EQU   *          ENTER HERE IF PASSING CONDITION CODES        099 12642919
         LR    R1,R13           AREA TO BE RELEASED                    099 12643819
         L     R13,SVEARA+N4  GET CALLER'S SAVEAREA ADR                099 12644719
         XC    SVEARA+N8(N4),SVEARA+N8  CLEAR MY SAVEAREA              099 12645619
*                                       ADR IN CALLERS                 099 12646519
*                                       SAVEAREA                       099 12647419
         DROP  R13                                                     099 12648319
*                                                                      099 12649219
         LA    R0,SAVARASZ+SYSIZE  SIZE OF AREA TO BE RELEASED         099 12650119
         FREEMAIN R,LV=(0),A=(1)                                       099 12651019
*                                                                      099 12651919
         LR    R15,R7     LOAD ANY CONDITION CODES                     099 12652819
         RETURN (14,12),RC=(15)    RETURN TO CALLER                  099 12653719
*                                                                    099 12654619
* * * * * * * * * EQUATES                                            099 12655519
*                                                                    099 12656419
N0       EQU   0                                                     099 12657319
N1       EQU   1                                                     099 12658219
N2       EQU   2                                                     099 12659119
N3       EQU   3                                                     099 12660019
N4       EQU   4                                                     099 12660919
N7       EQU   7                                                     099 12661819
N8       EQU   8                                                     099 12662719
HEXFF    EQU   X'FF'                                                 099 12663619
HEX01    EQU   X'01'                                                 099 12664519
HEXFD    EQU   X'FD'                                                 099 12665419
*                                                                    099 12666319
* * * * * * * * * ENQ/DEQ FOR DIRECT SYSOUT CONTROL BLOCKS (DSOCB)   099 12667219
*                                                                    099 12668119
DSOCBNQ  ENQ   (DSOCBNQQ,DSOCBNQR,E,05,SYSTEM),MF=L                  099 12669019
*                                                                    099 12669919
* * * ENQ/DEQ Q AND R NAMES                                          099 12670819
*                                                                    099 12671719
DSOCBNQQ DC    CL8'SYSIFFSD'  Q - MAJOR NAME                         099 12672619
DSOCBNQR DC    C'DSOCB'       R - MINOR NAME                         099 12673519
*                                                                    099 12674419
*                                                                    099 12675319
* * * * * * *,* * SYSOUT CLASS DIRECTORY (SCD)                       099 12676219
*                                                                    099 12677119
SCDAREA  DSECT                                                       099 12678019
SCDCLS   DS    CL1  SYSOUT CLASS                                     099 12678919
         DS    CL6  Q MGR DATA FOR SYSOUT Q                          099 12679819
SCDENTRY EQU   *-SCDCLS  SIZE OF EACH SYSOUT ENTRY                   099 12680719
         DS    CL(SCDENTRY*23)  24 ENTRIES IN SCD                    099 12681619
SCDPAD   DS    CL4  PAD                                              099 12682519
SCDNXT   DS    F    TTR OF NEXT SCD                                  099 12683419
*                                                                    099 12684319
* * * * * * * * * SYSOUT CLASS BLOCK                                 099 12685219
*                                                                    099 12686119
SAVESYS  DSECT                                                       099 12687019
SVEARA   DS    CL72       REG SAVEAREA                               099 12687919
SAVARASZ EQU   *-SVEARA        SIZE OF SAVE AREA                     099 12688819
SYSENTS  DS    CL1  NUMBER OF ENTRIES ENTERED IN BLOCK               099 12689719
SYSCLS   DS    CL1  SYSOUT CLASS                                     099 12690619
SYSENTRY EQU   *-SYSCLS  SIZE OF EACH SYSOUT ENTRY                   099 12691519
SYSNO    EQU   36   MAX NUMBER OF ENTRIES                            099 12692419
*                                                                    099 12693319
         DS    CL(SYSENTRY*(SYSNO-1))   FINISH OUT BLOCK             099 12694219
         DS    CL1        PAD FOR 'MOVE' TO STRIKE SYSOUT ENTRIES    099 12695119
*                         FROM THE SYSOUT BLOCK.  HEX'00'            099 12696019
SYSIZE   EQU   *-SYSENTS       TOTAL SIZE OF SYSOUT BLOCK            099 12696919
*                                                                    099 12697819
*                                                                    099 12698719
IEFDSOCB DSECT                                                       099 12699619
         IEFDSOCB                                                    099 12700519
         EJECT                                                       099 12701419
RSAR     DSECT                     THIS DSECT IS USED TO MAP ALLOCATE/  12710014
SAVEAREA DS    18F                 TERMINATE REG SAVE AREAS FOR USE BY  12720014
REMLST   DS    2F                  THIS MODULE                          12730014
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NOWRKECB DS    2F                                                       12740014
ECBLST   DS    2F                                                       12750014
WTOSWTCH DS    C                     SWTCH ON SAYS WRITE 'INPUT QUEUE   12760014
*                                    EMPTY' MESSAGE TO CONSOLE          12770014
*                                                                       12780014
  IEEBASEA
         EJECT                                                          12870017
CVTDSECT DSECT                                                          12880000
 CVT                                                                    12900000
         EJECT                                                          12920000
IEFCSCB  DSECT                                                          12940000
 IEECHAIN                                                               12960000
         EJECT                                                          12980000
IEFJCT   DSECT                                                          13000000
 IEFAJCTB                                                               13020000
IEFSCT   DSECT                                                          13026017
         IEFASCTB                                                       13032017
*                                                                       13040000
JCTDETDA EQU   INJMJCT+88             1ST TTR IN ENQ DSNAME TABLE       13060000
         EJECT                                                          13080000
*********************************************************************** 13100000
*                                                                     * 13120000
*        THE FOLLOWING REPRESENTS A BLOCK OF MAIN STORAGE WHICH IS    * 13140000
*        ALLOCATED FOR THE LIFE OF                                    * 13160000
*        OF THIS INITIATOR.  IT CONTAINS:                             * 13180000
*                                                                     * 13200000
*              (1)  THE LCT (LINKAGE CONTROL TABLE)                   * 13220000
*              (2)  A 2 LEVEL REGISTER SAVE AREA FOLLOWED BY THE      * 13240000
*                   THE QUEUE MANAGER PARAMETER AREA                  * 13260000
*              (3)  AN ALTERNATE QUEUE MANAGER PARAMETER AREA         * 13280000
*                                                                     * 13300000
*********************************************************************** 13320000
IEFLOT   DSECT                                                          13340000
  IEFALLCT                                                              13360000
LCTBATMN DS    F  *****TO BE ADDED TO LCT                               13380000
LCTSOQMP DS    F  *****TO BE ADDED TO LCT(VMS ONLY)  POINTER TO         13400000
*                        SYSOUT QUEUE MANAGER PARAMETER AREA            13420000
LCTSREG  DS    F  *****TO BE ADDED TO LCT(MVT ONLY) - PTR TO STOP INIT  13440014
*                                                     ECB               13460014
LCTINTSW DS    0C                    INITIATOR INTERNAL SWITCHES    I272 13462019
LCTIHIER EQU   128                  RUN IN HIERARCHY ONE            I272 13464019
LCTSDOXX EQU   32                   ATTACH IEFSDOXX                 I272 13466019
LCTMINRG EQU   16                   JOB FLUSH - USE MINPAR          I272 13468019
LCTSTART EQU   8                    TASKNAME NOT ON COMMAND         I272 13470019
LCTSTOP  EQU   4                    INITIATOR INTERNAL STOP         I272 13472019
LCTABEND EQU   2                    EXECUTED PROGRAM ABENDED        I272 13474019
LCTSPLP  DS    F  *****TO BE ADDED TO LCT(MVT ONLY) - PTR TO START PAR- 13480014
*                                                     AMETER LIST       13500014
LCTTMWRK DS    4F *****TO BE ADDED TO LCT(VMS ONLY) TIMER WORK AREA     13520000
LCTJOBLB DS    F  *****TO BE ADDED TO LCT(VMS ONLY) JOBLIB DCB PTR      13540000
LCTATLST DS    F  *****TO BE ADDED TO LCT(VMS ONLY)  POINTER TO         13560000
*                        ALLOCATE/TERMINATE PARAMETER LISTS             13580000
REGSAVE  DS    36F                       ALLOCATE/TERMINATE REGSAVE AREA 13600000
QMGR1    DS    9F                        QUEUE MANAGER PARAMETER AREA   13620000
QMGR2    DS    9F                        ALTERNATE QUEUE MANAGER AREA   13640000
TRSTKINF DS    2F                  NEEDED FOR TRACK STACKING AND QUEUE  13660000
*                                  BREAK INFORMATION.  1ST BYTE TO CON- 13680000
*                                TAIN  NUMBER OF BUFFERS, NEXT 3 BYTES  13700000
*                                FOR STACK ADDR, NEXT 4 BYTES FOR       13720000
*                                QUEUE BREAK INFORMATION                13740000
QMWTO1   EQU   QMGR1+24          PTR IN QMPA TO TRK STACK INFO          13760000
QMWTO2   EQU   QMGR2+24          PTR IN QMPA TO TRK STACK INFO          13780000
FCHLIST  DS    1F                                                       13786015
LCTIDENT DC    2F'0'               HOLDER FOR IDENTIFIER                13792015
LCTFORCE DS    CL8                                                 I241 13793018
LCTLIMIT DS    C                                                   I241 13794018
FRCPRTY  DS    C                                                   I241 13795018
INITPRTY DS    C                   INITIATOR'S PRTY                I241 13796018
*   THESE FIELDS ARE NEEDED FOR L-SHAPE/INIT MERGE             *   I272 13796219
         DS    0F                                                  I272 13796419
LCTOPSW1 DS    0C                  INITIATOR OPTIONS BYTE 1        I272 13796619
LCTPKEYF EQU   128                 DONT GET PROTECT KEY            I272 13796819
LCTDWFF  EQU   64                  DONT PROCESS DEDICATED WORKF    I272 13797019
LCTSTMDF EQU   32                  DONT PROCESS STOP/MODIFY        I272 13797219
LCTMINPF EQU   16                  GET REGION SIZE SPECIFIED       I272 13797419
LCTCANF  EQU   8                   ALLOW CANCEL ONLY AT ALLOC      I272 13797619
LCTONEJF EQU   4                   PROCESS ONLY ONE JOB            I272 13797819
LCTICMDF EQU   2                   DONT PROCESS INITIATOR CMDS     I272 13798019
LCTEXIT  DS    F                   ADDRESS INITIATOR EXIT LIST     I272 13798219
LCTOPSW2 DS    0C                  INITIATOR OPTIONS BYTE 2        I272 13798419
LCTTIMEF EQU   128                 DONT TIME THIS JOB              I272 13798619
LCTCRF   EQU   64                  DONT ALLOW CHECKPT/RESTART      I272 13798819
LCTDSOF  EQU   32                  DONT PROCESS DSO                I272 13799019
LCTCOM   DS    F                   COMMUNICATIONS PARM AREA PTR    I272 13799219
LCTJSCB  DS    F                   ADDRESS OF JSCB FOR TASK        I254 13799419
IEFEND   EQU   *                        END OF LIFE-OF-TASK BLOCK       13800000
         EJECT                                                          13820000
QMRDSECT DS    0F                                                       13840000
         IEFQMRES                                                       13860000
 IEFQMNGR                                                               13880000
QMOSC    EQU   QMTID+2                                             CR17 13890017
CANCELED EQU   X'01'    SET BY ALTER ROUTINE FOR IN-Q JOB CAN35L        13900000
         EJECT                                                          13910017
DSNIN    DSECT                                                          13920000
         DS    0D                                                       13940000
*    DSNAME ENQ TABLE INPUT AREA                                        13960000
ICTTR    DS    CL3                          CURRENT TTR                 13980000
         DS    CL1                          TABLE ID                    14000000
ILTTR    DS    CL3                          LAST TTR                    14020000
         DS    CL1                          ALIGNMENT ZERO              14040000
ICHAR    DS    F                            ACCUM. DSNAME CHAR COUNT    14060000
ICNT     DS    H                            ACCUM. DSNAME COUNT         14080000
         DS    CL162                        DSNAME RECORDS              14100000
*                                                                       14120000
*    DSNAME DEQ TABLE OUTPUT AREA                                       14140000
OCTTR    DS    CL3                          CURRENT TTR                 14160000
OTABID   DS    CL1                          TABLE ID                    14180000
OLTTR    DS    CL3                          LAST TTR                    14200000
         DS    CL1                                                      14220000
OCHAR    DS    F                            ACCUM. DSNAME CHAR COUNT    14240000
OCNT     DS    H                            ACCUM DSNAM COUNT           14260000
OSTART   DS    CL162                        DSNAME RECORDS              14280000
OEND     EQU   *                                                        14300000
*                                                                       14320000
* TWO 4 BYTE AREAS FOR TBUILD ROUTINE
         DS    0D                                                       14340000
TREE     DS    F                                                        14360000
         DS    0D                                                       14380000
BUD      DS    F                                                        14400000
*                                                                       14420000
IEFLOT   DSECT                                                          14440000
         ORG   REGSAVE+72                                               14460000
* EXTERNAL PARAMETER AREA FOR QMGR                                      144800 0
QEXPARM  DS    F                             CORE ADDR FOR READ OR WRITE14500000
QTTR     DS    CL3                           TTR                        14520000
         DS    CL1                                                      14540000
*                                                                       14560000
*  WORK AREA                                                            14580000
*                                                                       14600000
LENGTH   DS    H                             CURRENT DSNAME LENGTH      14620000
TTRBUF1  DS    CL3                           BUFFERS TO HOLD TTR S FOR  14640000
TTRBUF2  DS    CL3                           Q MGR WRITE FUNCTION       14660000
TESTEOD  DS    CL1                           END OF DATA INDICATOR-X'FF'14680000
CHARSAV  DS    F                             DSNAME COUNT AND CHARACTER 14700000
CNTSAV   DS    H                             SAVE AREAS                 14720000
*                                                                       14740000
* PARAMETER  LIST FOR TBUILD AND TSTRIP ROUTINES                        14760000
*                                                                       14780000
TBLPARM  DS    F                               ADDR OF TREE-8           14800000
DSNBEG   DS    F                            2ND PARM LIST ENTRY         14820000
DSNEND   DS    F                            1ST PARM LIST ENTRY         14840000
IEL      DSECT                                                          14860000
         IEZIEL  EXITS=RTN                                              14862019
COMPA    DSECT                                                          14864019
         IEZCOM                                                         14866019
         IEZJSCB                                                        14868019
CIBDSECT DSECT                                                          14870019
         IEZCIB                                                    I272 14872019
         IEFWTPCB                                                  I272 14874019
         END                                                      M4339 14877019
                                                                        14880000
                                                                               1
         TITLE 'IEFSD104-MS/1 STEP DELETE INTERFACE'                    00020000
IEFSD104 CSECT                                                          00040000
*                                                                 M2696 00041019
*                                                                 M3881 00043019
*011200-011800,016200-016400,021400-021600                        I272  00046019
*002600,004400,005600,006400,010800-015800,028600                  I272 00052019
*                                                                 M4373 00056019
         BALR  R12,0                                                    00060000
*                                                                     * 00080000
*********************************************************************** 00100000
*                                                                     * 00120000
*              MS/1 STEP DELETE INTERFACE                             * 00140000
*                                                                     * 00160000
*********************************************************************** 00180000
*                                                                     * 00200000
* STATUS - CHANGE LEVEL 000                                           * 00220000
*                                                                     * 00240000
* FUNTION (1) READ LCT FROM JOB QUEUE FOR SYSTEM TASKS             I272 00250019
*                                                                     * 00280000
* ENTRY POINT: IEFSD104 FROM IEFSD263.                                * 00300000
*                                                                     * 00320000
* INPUT: REGISTER ONE POINTING TO PARAMETER LIST CONSISTING OF:       * 00340000
*             (1) USER PARAMS POINTER                                 * 00360000
*             (2) FCB LIST POINTER                                    * 00380000
*             (3) ATTACH L LIST POINTER                               * 00400000
*             (4) LCT POINTER                                         * 00420000
*             (5) SYSTEM TASKS - POINTER TO PARM AREA              I272 00430019
*                 NON SYSTEM TASKS - ZERO                          I272 00440019
*             (6) TIOT LIST POINTER                                   * 00460000
*             (7) DCB ADDRESS                                      I270 00470019
*                                                                     * 00480000
* OUTPUT - THE INPUT PARAMETER LIST CONTAINING AN UPDATED TIOT LIST   * 00500000
*        POINTER                                                      * 00520000
*                                                                     * 00540000
* EXTERNAL REFERENCES - IEFSD514                                   I272 00560019
*                                                                     * 00580000
* EXIT -  IEFSD164                                                    * 00600000
*                                                                     * 00620000
* TABLES/WORK AREAS  TIOT,LCT,CSCB                                 I272 00640019
*                                                                     * 00660000
* ATTRIBUTES - REENTRANT                                              * 00680000
*                                                                     * 00700000
*********************************************************************** 00720000
         EJECT                                                          00740000
         USING *,R12                                                    00760000
         L     R5,ASD062           GET ADDRESS OF IEFSD062.
         LA    R6,DISPLACE(R5)     BUMP THE ADDRESS TO THE FTT FLAG.
         MVI   0(R6),X'FF'         SET THE FLAG 'FROM AFAR'.
         USING IEFCSCB,R5                                          I272 00765019
         USING IEFLOT,R6                                           I272 00770019
         USING IOPARAMS,R7                                         I272 00775019
*********************************************************************** 00780000
*                                                                     * 00800000
* THE FOLLOWING SECTION OF CODE SERVES ONLY TO IDENTIFY THIS MODULE   * 00820000
* IN A MEMORY DUMP                                                    * 00840000
*                                                                     * 00860000
         B     FIRST                                                  * 00880000
         DC    X'CCCC'                                                * 00900000
         DC    C'IEFSD104'                                            * 00920000
         DC    X'06081966'                                            * 00940000
         DC    X'CCCC'                                                * 00960000
FIRST    DS    0H                                                     * 00980000
*                                                                     * 01000000
*********************************************************************** 01020000
         EJECT                                                          01040000
         LR    R2,R1                  SAVE PARAMETER LIST REGISTER      01060000
         L     R3,X16(R2)          LOAD SYSTEM TASK INDICATOR      I272 01070019
         LTR   R3,R3               TEST FOR SYSTEM TASK            I272 01080019
         BZ    SD104005            BRANCH NOT SYSTEM TASK          I272 01090019
         L     R5,X8(R3)           LOAD CSCB ADDRESS               I272 01100019
         LA    R0,X104             GETMAIN FOR 24 PARM AREA AND    I272 01110019
         GETMAIN R,LV=(0)          72 REG SAVE AREA + 8 REMOTE LI  I272 01120019
         LA    R13,X32(R1)         SAVE AREA ADDRESS               I272 01130019
         LA    R7,CHQPA            ADDRESS OF QMPA IN CSCB         I272 01140019
         ST    R7,X0(R1)           STORE ADDRESS IN PARM           I272 01150019
         XC    X4(X20,R1),X4(R1)   ZERO PARM AREA                 M2696 01160019
         MVC   X4(X3,R1),X4(R3)    MOVE TTR TO PARM AREA          M2696 01170019
         LA    R4,X24(R1)          ADDRESS OF REMOTE LIST          I272 01180019
         ST    R4,QMPCL            REMOTE LIST PTR IN QMPA         I272 01190019
         MVI   QMPOP,X4            INDICATE READ OPERATION         I272 01200019
         LR    R10,R1              SAVE ADDRESS                    I272 01210019
         L     R15,SD514RD         ADDRESS OF IEFSD415             I272 01220019
         BALR  R14,R15             READ LCT FROM JOB QUEUE         I272 01230019
         LTR   R15,R15             TEST FOR I/O ERROR              I272 01240019
         BZ    SD104002            BRANCH NO I/O ERROR             I272 01250019
         LA    R1,X'0B0'           0B0 ABEND                       I272 01260019
         SLA   R1,X12                                              I272 01270019
         ABEND (1),DUMP                                            I272 01280019
SD104002 L     R6,X8(R1)           ADDRESS OF LCT                  I272 01290019
         MVC   QMGR1(X36),CHQPA    MOVE MAIN QMPA TO LCT           I272 01293019
         MVC   QMGR2(X36),CHSQA    MOVE SYSOUT QMPA TO LCT         I272 01296019
         LA    R7,QMGR1            ADDRESS OF QMPA                 I272 01300019
         L     R11,QMWTQ             ADDRESS OF TRACK STACK INFO   I272 01303019
         MVC   TRSTKINF(X8),X0(R11)   MOVE TS INFO                 I272 01306019
         LA    R4,REGSAVE+72       ADDRESS OF REMOTE LIST          I272 01310019
         ST    R4,QMPCL            ADDRESS OF REMOTE LT IN QMPA    I272 01320019
         LA    R4,TRSTKINF         ADDRESS OF TRACK STACK INFO     I272 01330019
         ST    R4,QMWTQ1           STORE TRACK STACK INFO          I272 01340019
         ST    R4,QMWTQ2           IN BOTH QMPAS                   I272 01350019
         LA    R4,REGSAVE          ADDRESS OF SAVE AREA            I272 01360019
         ST    R4,LCTCMCBA         STORE IN LCT                    I272 01370019
         LA    R4,QMGR2            ADDRESS OF SYSOUT Q MGR         I272 01380019
         ST    R4,LCTSOQMP         PARM AREA IN LCT                I272 01390019
         L     R8,LCTJSCB          ADDRESS OF JOB STEP JSCB        I272 01391019
         USING IEZJSCB,R8                                          I272 01392019
         L     R8,JSCBWTP          ADDRESS OF WTP CONTROL BLK      I272 01393019
         DROP R8                                                   I272 01394019
         USING WTPCB,R8                                            I272 01395019
         MVC   WTPQMPAD,LCTSOQMP+X1 MOVE ADDRESS OF QMPA           I272 01396019
         DROP R8                                                   I272 01397019
         LA    R0,X104             LENGTH TO BE FREED              I272 01400019
         LR    R1,R10              RESTORE ADDRESS                 I272 01410019
         FREEMAIN R,LV=(0),A=(1)   FREE PARM REMOTE LT AND RSA     I272 01420019
         MVC   LCTPARM1(X16),X0(R3) MOVE LCT PARMS INTO LCT        I272 01430019
         FREEMAIN R,LV=24,A=(1),SP=TCORE FREE SYSPARM AND TS INFO I272 01440019
         XC    X16(X4,R2),X16(R2) ZERO PARM PTR                  I272 01450019
         ST    R6,12(R2)          STORE LCT ADDRESS IN PARM LIST I272 01460019
SD104005 EQU   *
         LR    R1,R2                                                  01600000
         L     R15,SD64VCON          RESTORE PARAMETER LIST ADDRESS   02300000
         BR    R15                   ADDRESS OF IEFSD064              02320000
SD64VCON DC    V(IEFSD064)           GO TO IEFSD064                   02340000
SD514RD  DC    V(IEFSD514)                                            02380000
ASD062   DC    V(IEFSD062)                                       I272 02400019
R0       EQU   0
R1       EQU   1                                                      02500000
R2       EQU   2                                                      02520000
R3       EQU   3                                                      02540000
R4       EQU   4                                                      02560000
R5       EQU   5                                                      02580000
R6       EQU   6                                                      02600000
R7       EQU   7                                                      02620000
R8       EQU   8                                                      02640000
R9       EQU   9                                                      02660000
R10      EQU   10                                                     02680000
R11      EQU   11                                                     02700000
R12      EQU   12                                                     02720000
R13      EQU   13                                                     02740000
R14      EQU   14                                                     02760000
R15      EQU   15                                                     02780000
X0       EQU   0                                                      02800000
X1       EQU   1                                                 I272 02802019
X4       EQU   4                                                 I272 02803019
X3       EQU   3                                                 I272 02804019
X7       EQU   7                                                M2696 02804619
X8       EQU   8                                                M2696 02805219
X12      EQU   12                                                I272 02806019
X16      EQU   16                                                I272 02808019
X20      EQU   20                                                I272 02810019
X24      EQU   24                                               M2696 02811019
X32      EQU   32                                                I272 02812019
X36      EQU   36                                                I272 02814019
X104     EQU   104                                               I272 02815019
TCORE    EQU   253                                               I272 02816019
DISPLACE EQU   760                                               I272 02818019
         EJECT
         IEFWTPCB                                                I272 02818319
         EJECT                                                   I272 02818619
         IEZJSCB                                                 I272 02818919
         EJECT                                                   I272 02819219
IEFLOT   DSECT                                                   I272 02819519
         IEFALLCT                                                     02820000
         DS    1F                                                     02840000
LCTSOOMP DS    1F                                                I272 02846019
*                         ADDRESS OF MESSAGE CLASS QUEUE         I272 02852019
         DS    8F         MANAGER PARAMETER AREA                 I272 02858019
REGSAVE  DS    36F                                               I272 02864019
OMGR1    DS    9F                                                I272 02870019
OMGR2    DS    9F               MAIN OMGR PARAMETER AREA              02880000
OMCAP    EQU   OMGR1+24         'ALTERNATE' OMGR PARAMETER AREA       02900000
TRSTKINF DS    2F         PTR IN OMPA TO TRK STACK INFO               02920000
                          NEEDED FOR TRACK STACKING AND QUEUE         02940000
```

```
*                                            BRFAK INFORMATION.  1ST BYTE TO CON-         02960000
*                                            TAIN  NUMBER OF BUFFERS, NEXT 3 BYTES        02980000
*                                            FOR STACK ADDR, NEXT 4 BYTES FOR             03000000
*                                            QUEUF BREAK INFORMATION                      03020000
QMWT01   EQU   QMGR1+24     PTR IN QMPA TO TRACK STACK INFO                          I272 03022019
QMWTQ2   EQU   QMCR2+24     PTR IN QMPA TO TRACK STACK INFO                          I272 03024019
         DS    8F                                                                    I272 03025019
LCTJSCB  DS    F                              ADDRESS OF P/P JSCB                    I272 03026019
IFFEND   EQU   *                                                                     I272 03028019
         EJECT                                                                       I272 03029019
 IEFQMNGR                                                                            I272 03030019
         EJECT                                                                       I272 03031019
IEFCSCB  DSECT                                                                       I272 03032019
 IEECHAIN                                                                            I272 03034019
         END                                                                              03040000
```

```
IEFW42SD CSECT
R0          EQU    0
R1          EQU    1
R2          EQU    2
R3          EQU    3
R4          EQU    4
R5          EQU    5
R6          EQU    6
R7          EQU    7
R8          EQU    8
R9          EQU    9
R10         EQU    10
R11         EQU    11
R12         EQU    12
R13         EQU    13
R14         EQU    14
R15         EQU    15
            ENTRY  IEFV4221
            SAVE   (14,12),T
            DS     0H
            BALR   R9,R0
            USING  *,R9
            B      FIRST
            DC     X'CCCC'
            DC     CL8'IEFSD42Q'
            DC     X'05161966'
            DC     X'CCCC'
FIRST       DS     0H
            USING  LCT,R12
            L      R12,0(R1)
            LR     R2,R1
            L      R6,LCTQENTY
            SRL    R6,24
            SLL    R6,24
            SLL    R13,8
            SRL    R13,8
            AR     R13,R6
            ST     R13,LCTQENTY
            SR     R3,R3
            L      R15,CVTPTR
            USING  CVTDSECT,R15
            L      R10,CVTMSER
            USING  BASE,R10
            TM     MSLOGST,MSLOGENQ
            BZ     IEFV4221
            DROP   R10,R15
            L      R0,ENQLOGCR
            GETMAIN R,LV=(0)
            LA     R3,NO(,R1)
            MVC     NO(ENQLOGE,R3),ENQLOG
            USING  ENQLOG,R1
            ENQ    (ENQLOGQQ,ENQLOGQR),MF=(E,(1))
            DROP   R1
            LTR    R15,R15
            BNZ    IEFV4221
            LNR    R3,R3
SYSOUT      XCTL   EP=IEFVLDSP
```

```
IEFV4221 EQU   *
         DROP  R9
         BALR  R9,0
         USING *,R9
         L     R8,ASD062               GET ADDR. OF IEFSD062.
         LA    R8,DISPLACE(R8)         BUMP TO FTT FLAG.
         MVI   0(R8),X'FF'             REMOTE SET.
         USING LCT,R12
         LTR   R3,R3
         BZ    SECOND
         BP    NOLOG
         LPR   R1,R3
         DEQ   MF=(E,(1))
NOLOG    EQU   *
         L     R0,ENQLOGCR
         LPR   R1,R3
         FREEMAIN R,LV=(0),A=(1)
SECOND   DS    0H
         MVC   LCTJCTAD(4),4(R2)
         MVC   LCTSCTAD(4),8(R2)
         MVC   LCTPARM1(4),12(R2)
         ST    R2,LCTATLST
         L     R5,LCTTCBAD
         USING TCB,R5
         USING CVTDSECT,R15
         L     R15,CVTPTR
         TM    CVTDCB,X'20'
         BO    IEFV42H
         XC    TCBTIO(4),TCBTIO
IEFV42H  EQU   *
         L     R3,LCTJCTAD
         USING IEFJCT,R3
         TM    JCTJSTAT,INCMSTS+JCTJOBFL+JCTABEND+JCTSTPFL
         BZ    RJENDSET
         LA    R3,QMGR2
         USING IOPARAMS,R3
         OI    QMSTA,RJENDFAL
         DROP  R3
RJENDSET EQU   *
         GETMAIN R,LV=176
         ST    R1,LCTSMBAD
         XC    0(176,R1),0(R1)
         USING SCT,R2
         L     R2,LCTSCTAD
         L     R10,LCTJCTAD
         USING IEFJCT,R10
         MVC   0(4,R1),SCTADSMB
         MVI   TTR0(R1),SMBID
TESTWTP  EQU   *
         L     R15,CVTPTR
         USING CVTDSECT,R15
         TM    CVTDCB,MFT
         DROP  R15
         BO    GOON
         L     R11,LCTJSCB
         B     WTPPTR
GOON     L     R11,TCBJSCB(R5)
```

```
WTPPTR    L      R11,WTPCBPTR(R11)
          LA     R11,HIGHBYTE(R11)
          LTR    R11,R11
          USING  WTPDSECT,R11
          BNZ    TESTWTP1
HOLDON    EQU    *
          TM     SCTSTYPE,X'20'
          BO     IEFV42R
WTPRETN   EQU    *
          L      R13,LCTCMCBA
          USING  IOPARAMS,R1
          LA     R1,LCTOMPAM(R13)
          LA     R4,72(R13)
          MVC    0(4,R4),LCTSMBAD
          LTR    R11,R11
          BZ     NOWTP
          MVC    D4(1TR,R4),WTPSMB
          MVI    07(R4),HEX0H
          B      WTPOVER1
NOWTP     EQU    *
          MVC    4(4,R4),SCTADSMB
WTPOVER1  EQU    *
          L      R7,LCTSMBAD
          MVI    OMPOP,X'04'
          ST     R4,OMPCL
          MVI    OMPCM,X'01'
READNEXT  EQU    *
          L      R15,IEFV42V1
          BALR   R14,R15
          LTR    R11,R11
          BZ     IEFV42R
          TM     WTPFLGSA,WTPINVKD
          BZ     IEFV42R
          MVI    NEXTBYTE(R7),FULL
IEFV42R   DS     0H
          TM     TCBFLGS,TCBFA
          BC     1,IEFV42S
          TM     JCTRSW2,X'01'
          BZ     IEFV42T
          NI     JCTRSW2,X'FE'
          OI     LCTQENTY,LCTERRM
          MVC    LCTERROR(4),IEFV42C1
IEFV42T   EQU    *
          TM     SCTSSTAT,4
          BO     IEFNEXT
          NI     JCTRSW1,255-JCTCKFT
IEFNEXT   EQU    *
          L      R15,IEFV42V3
          BR     R15
IEFV42S   DS     0H
          L      R15,IEFV42V4
          BR     R15
TESTWTP1  EQU    *
          TM     WTPFLGSA,WTPINVKD
          BZ     HOLDON
          MVC    SCTCRWTP(D4),WTPCRSMB
          B      WTPRETN
          DROP  R11
*
*         CONSTANTS AND DSECTS.
*
DISPLACE EQU    760
NEXTSMB  EQU    4
D7       EQU    7
TTRO     EQU    3
TTR      EQU    TTRO
HIGHBYTE EQU    0
D4       EQU    4
HEX0H    EQU    X'00'
NEXTBYTE EQU    13
FULL     EQU    X'A1'
WTPCBPTR EQU    X'FC'
TCBJSCB  EQU    X'B4'
MET      EQU    X'20'
ASD062   DC     V(IEFSD062)
IEFV42V1 DC     V(IEFQMRAW)
IEFV42V3 DC     V(IEFYN)
IEFV42V4 DC     V(IEFIDUMP)
ENQLOG   ENQ    (,,E,06,SYSTEM),RET=USE,MF=L
ENQLOGQN DC     CL8'SYSIEFSD'
ENQLOGQR DC     CL6'SYSLOG'
ENQLOGE  EQU    *-ENQLOG
         DS     0F
ENQLOGCR DC     AL1(255)
         DC     AL3(ENQLOGE)
NO       EQU    0
N255     EQU    255
IEFV42C1 DC     C'DSDR'
RJENDFAL EQU    8
JCTJOBFL EQU    64
JCTSTPFL EQU    16
*
TCB      DSECT
         DS     CL12
TCBTIO   DS     CL4
         DS     CL13
TCBFLGS  DS     CL5
TCBFA    EQU    X'80'
         IEFWTPCB
LCT      DSECT
         IEFALLCT
LCTBATMN DS     F
LCTSOQMP DS     F
LCTRTRN  DS     F
LCTCSCB  DS     F
LCTTMWRK DS     4F
LCTJOBLB DS     F
LCTATLST DS     F
REGSAVE  DS     36F
QMGR1    DS     9F
QMGR2    DS     9F
IEFEND   EQU    *
LCTJSCB  EQU    LCT+360
SCT      DSECT
```

```
         IEFASCTB
         IEFQMPAM
CVTDSECT DSECT
         CVT
IEFJCT   DSECT
         IEFAJCTB
         IEFBASEA
         END
         TITLE 'IEFSD165 VMS INITIATOR ERROR MODULE'                    00020000
IEFSD065 CSECT                                                          00040000
*2186016700-026300                                                      00050017
************************************************************************00060000
*                                                                     * 00080000
*                            IEFSD065                                 * 00100000
*                 NO ATTACH TERMINATE INTERFACE                       * 00120000
*                                                                     * 00140000
********************************************************************* * 00160000
********************************************************************* * 00180000
*                                                                       00200000
*STATUS: CHANGE LEVEL 000                                               00220000
*                                                                     * 00240000
*FUNCTION:   TO INTERFACE WITH THE TERMINATE ROUTINES WHEN AN ERROR   * 00260000
*           IN ALLOCATE CAUSES THE JOB STEP TO BE NOT ATTACHED.       * 00280000
*                                                                     * 00300000
*ENTRY POINTS: IEFSD065  FROM THE ALLOCATE/ATTACH MODULE IEFSD062     * 00320000
*                                                                     * 00340000
*INPUT:      REG 1 POINTING TO A PARAMETER LIST CONTAINING POINTERS   * 00360000
*                                TO-***********************           * 00380000
*                                             *   LCT    *            * 00400000
*                                             ************            * 00420000
*                                             *   JCT    *            * 00440000
*                                             ************            * 00460000
*                                             *   SCT    *            * 00480000
*                                             ************            * 00500000
*                                             * TIOTLIST *            * 00520000
*                                             ************            * 00540000
*                                             *    0     *            * 00560000
*                                             ************            * 00580000
*                                                                     * 00600000
*OUTPUT: REG 1 POINTING TO LCT                                          00620000
*                                                                       00640000
*EXTERNAL ROUTINES: IEFQMRAW - Q MNGR READ/WRITE ROUTINE                00660000
*                   IEFW42SD - TERMINATE                                00680000
*                                                                     * 00700000
*TABLES AND WORK AREAS: LCT-TCB                                       * 00720000
*                                                                     * 00740000
*EXITS  IEFSD162 - IF MORE STEPS TO BE RUN                         CR17 00750017
*EXITS  IEFSD166 - IF END OF JOB                                   CR17 00760017
*EXITS  IEFSD168 - IF JOB IS TO BE SUSPENDED                       CR17 00770017
*                                                                     * 00800000
*ERROR MESSAGES:  NONE                                                * 00820000
*                                                                       00840000
*ATTRIBUTES: REENTRANT                                                  00860000
*                                                                       00880000
*                                                                     * 00900000
************************************************************************00920000
************************************************************************00940000
*                                                                     * 00960000
         EJECT                                                          00980000
         BALR  12,0                                                     01000000
         USING *,12                                                     01020000
         USING IEFLOT,R11                                               01040000
************************************************************************01060000
*        THE FOLLOWING CODE SERVES ONLY TO MAKE THIS MODULE EASIER    * 01080000
*        TO IDENTIFY IN A DUMP LISTING.                               * 01100000
```

```
************************************************************************ 01120000
         B     FIRST                                                     01140000
         DC    X'CCCC'                                                   01160000
         DC    C'IEFSD165'                                               01180000
         DC    X'05031966'                                               01200000
         DC    X'CCCC'                                                   01220000
FIRST    DS    0H                                                        01240000
************************************************************************ 01260000
*        SETUP TO BUILD DUMMY TCB TO SATISFY REQUIREMENTS TO ENTER     * 01280000
*        TERMINATE.                                                    * 01300000
************************************************************************ 01320000
         LR    R3,R1                    SAVE POINTER TO PARAMETER LIST   01340000
*                                       BUILT BY SD062                 * 01360000
         L     R11,0(R3)           LOAD LCT BASE                     241 01362018
         SR    R1,R1               CLEAR REG                         241 01364018
         IC    R1,LCTQDRTY         GET JOB PRIORITY                  241 01366018
         LA    R0,15               PUT 15 IN REG                     241 01368018
         SR    R0,R1               GET 15-PRTY                       241 01370018
         CHAP  (0)                 CHAP INIT UP TO UNSHADED PRTY     241 01372018
         LA    R1,TCORE            SUBPOOL                          I272 01376019
         SLL   R1,D24              SUBPOOL IN HIGH-ORDER BYTE       I272 01380019
         LA    R0,TCBLEN           LENGTH OF TCB                    I272 01384019
         OR    R0,R1               SUBPOOL IN HIGH-ORDER BYTE       I272 01388019
         GETMAIN    R,LV=(0)       GET CORE FOR DUMMY TCB           I272 01392019
         XC    ZERO(TCBLEN,R1),ZERO(R1) ZERO DUMMY TCB             M4340 01422019
         ST    R1,LCTTCBAD              STORE POINTER TO DUMMY TCB IN    01460000
*                                       LCT                            * 01480000
TCBTCT   EQU   164                                                  SMF1 01482018
         L     R4,LCTQDRTY              PT TO CSCB                  SMF1 01484018
         USING  IEFCSCB,R4                                          SMF1 01486018
         L     R4,CHSWT                 NOW PT TO TCB               SMF1 01488018
         MVC   TCBJSCB+D1(D3,R1),LCTJSCB+D1  ADDR JSCB TO TERM     M4340 01489019
         DROP  R4                                                        01490018
         MVC   TCBTCT(4,R1),TCBTCT(R4)  COPY TCT PTR TO FAKE TCB    SMF1 01492018
************************************************************************ 01500000
*        SETUP TO GETCORE FOR REGSAVE AREA AND BRANCH TO TERMINATE     * 01520000
*        AFTER RESTORING REG 1 TO POINT TO PARAMETER LIST BUILT BY     * 01540000
*        SD062.                                                        * 01560000
************************************************************************ 01580000
         LR    R6,R1               SAVE ADDR DUMMY TCB             M4340 01590019
         USING IEFSCT,R5                                            CR17 01610017
         USING IEFCSCB,R7                                           CR17 01620017
         USING IOPARAMS,R10                                         CR17 01630017
         L     R5,LCTSCTAD              SCT BASE.                   CR17 01640017
         L     R7,LCTQDRTY              CSCB BASE.                  CR17 01650017
         LA    R10,QMGR1                QMPA BASE.                  CR17 01660017
SD65005  EQU   *                                                         02640000
         GETMAIN R,LV=72,SP=TCORE                                        02660000
         LR    R13,R1                                                    02680000
         LR    R1,R3                    RESTORE PARAM LIST POINTER       02700000
         L     R15,SD42VCON             ADDRESS OF TERMINATE             02720000
         BALR  R14,R15                  GO TO TERMINATE                  02740000
************************************************************************ 02760000
*        UPON RETURN FROM TERMINATE- SETUP TO FREECORE  FOR THE DUMMY * 02780000
*        TCB. TERMINATE RETURNS A CODE IN REGISTER 15 TO DENOTE IF JOB* 02800000
*        TERMINATE WAS ENTERED OR NOT. 0= NOT ENTERED- 4= ENTERED      * 02820000
************************************************************************ 02840000
```

```
         LR    R7,R15                          SAVE RETURN CODE                 02860000
         LR    R1,R3                            ADDRESS OF PARAMETER LIST       02880000
         FREEMAIN  R,LV=24,A=(1),SP=TCORE                                       02900000
         LA    R1,TCORE             SUBPOOL                                1272 02904019
         SLL   R1,024               SUBPOOL IN HIGH-ORDER BYTE             1272 02908019
         LA    R0,TCBLEN            LENGTH OF TCB                          1272 02912019
         OR    R0,R1                SUBPOOL IN HIGH-ORDER BYTE             1272 02916019
         LR    R1,R6                RESTORE ADDR DUMMY TCB                M4340 02926019
         FREEMAIN   R,LV=(0),A=(1)  FREE DUMMY TCB                         1272 02940019
         LR    R1,R13                          RESTORE POINTER TO REG SAVE AREA 02960000
         FREEMAIN  R,LV=72,A=(1),SP=TCORE                                       02980000
         LA    R15,4                                                       CR17 03000017
         CR    R7,R15                           IS THIS JOB TERMINATION.   CR17 03020017
         BNE   SD65226              NO.                                    CR17 03040017
*                                   YES, JOB TERMINATION                  M4340 03042019
         L     R1,LCTJSCB           ADDR EXEC PGM JSCB                    M4340 03044019
         USING IEZJSCB,R1           JSCB ADDRESSABILITY                   M4340 03046019
         L     R1,JSCBWTP           ADDR WTPCB                            M4340 03048019
         DROP  R1                                                         M4340 03050019
         LA    R1,ZERO(R1)          CLEAR HIGH-ORDER BYTE                 M4340 03052019
         USING WTPCB,R1             WTPCB ADDRESSABILITY                  M4340 03054019
         XC    WTPSMB(WTPCBSIZ),WTPSMB        ZERO WTPCB                  M4340 03056019
         DROP  R1                                                         M4340 03058019
         LR    R1,R11                          YES.                        CR17 03060017
         L     R15,SD66VCON                                                CR17 03080017
         BR    R15                             GO TO IEFSD166              CR17 03100017
SD65226  EQU   *                                                           CR17 03120017
         L     R1,LCTJSCB           ADDR EXEC PGM JSCB                    M4340 03121019
         USING IEZJSCB,R1           JSCB ADDRESSABILITY                   M4340 03122019
         L     R1,JSCBWTP           ADDR EXEC PGM WTPCB                   M4340 03123019
         DROP  R1                                                         M4340 03124019
         LA    R1,ZERO(R1)          CLEAR HIGH-ORDER BYTE                 M4340 03125019
         USING WTPCB,R1             WTPCB ADDRESSABILITY                  M4340 03126019
         XC    WTPSMB,WTPSMB        ZERO WTPSMB SLOT                      M4340 03127019
         NI    WTPFLGSA,WTPCLEAN    TURN OFF ALL STEP FLAGS               M4340 03128019
         XC    WTPBYTES(D8),WTPBYTES     ZERO 2 WORDS IN WTPCB            M4340 03129019
         DROP  R1                                                         M4340 03130019
         LA    R1,REGSAVE+72                   YES.QMGR REMOTE AREA.       CR17 03140017
         ST    R5,0(0,R1)                      SCT CORE ADDRESS TO REMOTE AREA 03240000
         MVC   4(4,R1),SCTANSCT                SCT TTR TO REMOTE AREA           03260000
         ST    R1,QMPCL                        REMOTE AREA TO QMPAM             03280000
         MVI   QMPOP,4                         INDICATE READ OPERATION          03300000
         MVI   QMPCL,1                         INDICATE 1 OPERATION             03320000
         LA    R13,REGSAVE                     REGISTER SAVE AREA               03340000
         L     R15,QMVCON                      ADDRESS OF Q MGR                 03360000
         LR    R1,R10                          ADDRESS OF PARM AREA             03380000
         BALR  R14,R15                         GO TO READ IN SCT                03400000
         B     SD65020(R15)                    CHECK RETURN CODE                03420000
SD65020  B     SD65030                         RETURN CODE OK                   03440000
         BC    0,SD65020                       NO WORK, IMPOSSIBLE ON READ      03460000
         BC    0,SD65020                       NO SPACE, IMPOSSIBLE ON READ     03480000
*****************************  I/O ERROR                                        03500000
*****************************   CODE TO PROCESS THIS CONDITION                  03520000
         LA    R1,X'0B0'            SHOULD BE PLACED HERE                       03540000
         SLL   R1,12                TEMPORARILY, ABEND                          03560000
         ABEND  (1),DUMP                                                        03580000
*****************************                                                   03600000
```

```
SD65030  EQU   *                                                        03620000
         IC    R1,LCTSNUMB              UPDATE                          03640000
         LA    R1,1(0,R1)               STEP                            03660000
         STC   R1,LCTSNUMB              NUMBER IN LCT                   03680000
*********************************************************************** 03700000
*                                                                     * 03720000
* LCTPARM1 IS TESTED IN IEFSD102 FOR DATA SET ENQUEUEING,AND MUST BE  * 03740000
* SET TO ZERO BEFORE EXITING IEFSD165 TO IEFSD101.                    * 03760000
*                                                                     * 03780000
         XC    LCTPARM1,LCTPARM1                                        03800000
*                                                                     * 03820000
*********************************************************************** 03840000
         L     R15,SD62VCON       GET ADDRESS OF IEFSD062.
         LA    R15,DISPLACE(R15)  BUMP IT TO FTT FLAG.
         MVI   0(R15),X'FF'       SET THE FLAG.
         LR    R1,R11                   LCT ADDRESS TO R1               03860000
         L     R15,SD62VCON                                             03880000
         BR    R15                     BRANCH TO SD062 TO ALLOCATE FOR  03900000
*                                      AND ATTACH ANOTHER JOB STEP    * 03920000
SD68VCON DC    V(IEFSD068)                                         CR17 03926017
         EJECT                                                          03932017
SD66VCON DC    V(IEFSD066)                                              03940000
SD62VCON DC    V(IEFSD062)                                              03960000
OMVCON   DC    V(IEFQMRAW)                                              03980000
SD42VCON DC    V(IEFW42SD)                                              04000000
DISPLACE EQU   760
TCORE    EQU   253                                                      04020000
TIOTPTR  EQU   12                      DISPLACEMENT OF TIOT PTR IN TCB  04040000
TCBFLGS  EQU   29                                                  CR17 04050017
TCBLEN   EQU   184                 LENGTH OF TCB                   I272 04052019
TCBJSCB  EQU   180                 JSCB DISPLACEMENT IN TCB        I254 04054019
ZERO     EQU   0                   DISPLACEMENT                   M4340 04054519
D1       EQU   1                   DISPLACEMENT                   M4340 04055019
D3       EQU   3                   DISPLACEMENT                   M4340 04055519
D4       EQU   4                   DISPLACEMENT                    I254 04056019
D8       EQU   8                   DISPLACEMENT                   M4340 04057019
D24      EQU   24                  DISPLACEMENT                    I272 04058019
*********************************************************************** 04060000
*                    REGISTER EQUATE STATEMENTS                       * 04080000
*********************************************************************** 04100000
R0       EQU   0                                                        04120000
R1       EQU   1                                                        04140000
R2       EQU   2                                                        04160000
R3       EQU   3                                                        04180000
R4       EQU   4                                                        04200000
R5       EQU   5                                                        04220000
R6       EQU   6                                                        04240000
R7       EQU   7                                                        04260000
R8       EQU   8                                                        04280000
R9       EQU   9                                                        04300000
R10      EQU   10                                                       04320000
R11      EQU   11                                                       04340000
R12      EQU   12                                                       04360000
R13      EQU   13                                                       04380000
R14      EQU   14                                                       04400000
R15      EQU   15                                                       04420000
         EJECT                                                          04430017
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IEFCSCB  DSECT                                                          04440000
         IEECHAIN                                                       04460000
         EJECT                                                          04470017
IHADCB   DSECT                                                          04480000
DCBSTART EQU   *                                                        04500000
         DCB   DSORG=PO,MACRF=E                                         04520000
IEFXLIST DC    F'0'                    DCB EXIT LIST                    04540000
DCBEND   EQU   *                                                        04560000
         EJECT                                                          04580000
IEFSCT   DSECT                                                          04600000
   IEFASCTB                                                             04620000
         EJECT                                                          04630017
   IEFQMNGR                                                             04640000
QMOSC    EQU   QMTID+2                                             CR17 04650017
IEFLOT   DSECT                                                          04660000
*********************************************************************** 04680000
*                                                                     * 04700000
*        THE FOLLOWING REPRESENTS A BLOCK OF MAIN STORAGE WHICH IS    * 04720000
*        ALLOCATED FOR THE LIFE OF                                    * 04740000
*        OF THIS INITIATOR.  IT CONTAINS:                             * 04760000
*                                                                     * 04780000
*              (1)  THE LCT (LINKAGE CONTROL TABLE)                   * 04800000
*              (2)  A 2 LEVEL REGISTER SAVE AREA FOLLOWED BY THE      * 04820000
*                   THE QUEUE MANAGER PARAMETER AREA                  * 04840000
*              (3)  AN ALTERNATE QUEUE MANAGER PARAMETER AREA         * 04860000
*                                                                     * 04880000
*********************************************************************** 04900000
  IEFALLCT                                                              04920000
LCTBATMN DS    F  *****TO BE ADDED TO LCT                               04940000
LCTSOQMP DS    F  *****TO BE ADDED TO LCT(VMS ONLY)  POINTER TO         04960000
*                       SYSOUT QUEUE MANAGER PARAMETER AREA             04980000
LCTRTRN  DS    F  *****TO BE ADDED TO LCT(VMS ONLY) INITIATOR'S         05000000
*                       RETURN POINT                                    05020000
LCTCSCB  DS    F  *****TO BE ADDED TO LCT(VMS ONLY) INITIATOR CSCB      05040000
*                       ADDRESS                                         05060000
LCTTMWRK DS    4F *****TO BE ADDED TO LCT(VMS ONLY) TIMER WORK AREA     05080000
LCTJOBLB DS    F  *****TO BE ADDED TO LCT(VMS ONLY) JOBLIB DCB PTR      05100000
LCTATLST DS    F  *****TO BE ADDED TO LCT(VMS ONLY)  POINTER TO         05120000
*                       ALLOCATE/TERMINATE PARAMETER LISTS              05140000
REGSAVE  DS    36F                          ALLOCATE/TERMINATE REGSAVE AREA 05160000
QMGR1    DS    9F                           QUEUE MANAGER PARAMETER AREA    05180000
QMGR2    DS    9F                           ALTERNATE QUEUE MANAGER AREA    05200000
         DS    8F                    TO CORRECT DISPLACEMENT           M4340 05201019
*   THESE FIELDS ARE NEEDED FOR L-SHAPE/INIT MERGE                 *   I272 05202019
         DS    OF                                                      I272 05203019
LCTOPSW1 DS    OC                    INITIATOR OPTIONS BYTE 1          I272 05204019
LCTPKEYF EQU   128                   DONT GET PROTECT KEY              I272 05205019
LCTDWFF  EQU   64                    DONT PROCESS DEDICATED WORKF      I272 05206019
LCTSTMDF EQU   32                    DONT PROCESS STOP/MODIFY          I272 05207019
LCTMINPF EQU   16                    GET REGION SIZE SPECIFIED         I272 05208019
LCTCANF  EQU   8                     ALLOW CANCEL ONLY AT ALLOC        I272 05209019
LCTONEJF EQU   4                     PROCESS ONLY ONE JOB              I272 05210019
LCTICMDF EQU   2                     DONT PROCESS INITIATOR CMDS       I272 05211019
LCTEXIT  DS    F                     ADDRESS INITIATOR EXIT LIST       I272 05212019
LCTOPSW2 DS    OC                    INITIATOR OPTIONS BYTE 2          I272 05213019
LCTTIMEF EQU   128                   DONT TIME THIS JOB                I272 05214019
LCTCRF   EQU   64                    DONT ALLOW CHECKPT/RESTART        I272 05215019
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LCTDSUP  EQU   32                     DONT PROCESS DSO                 I272 05216019
LCTCOM   DS    F                      COMMUNICATIONS PARM AREA PTR     I272 05217019
LCTJSCB  DS    F                      ADDRESS OF JSCB FOR NEW TASK     I254 05218019
IEFEND   EQU   *                           END OF LIFE-OF-TASK BLOCK        05220000
         IEZJSCB                                                            05226019
WTPPTR   EQU   JSCBWTP-IEZJSCB        DISPLACEMENT OF WTP PTR          I254 05232019
         IEFWTPCB                                                     M4340 05234019
WTPCLEAN EQU   X'40'                                                  M4340 05236019
         EJECT                                                              05240000
         END                                                                05260000
                                                                                   0
         TITLE 'IEFSD162 VMS INITIATOR STEP PROCESSOR'                  00020000
IEFCVT   DSECT                                                          00040000
         CVT                                                            00060000
         EJECT                                                          00070017
IEFSD062 CSECT                                                          00080000
*  055610-055630,055700,055805,059400,063110,082750               A29871 00080119
*                                                                 M3166 00080219
*   066390-066550                                                A27679 00080519
* 069800-070200,070800                                            M2434 00081018
         ENTRY IEFSD62A                                            CR17 00082017
* 059000-060600,063260-063740,083000-083200,086200               A16531 00083018
*2056043971                                                      PTM663 00085016
*0059                                                              1404 00090014
*1785043669,043687,068200,068400,069600,070800,083800             18428 00092017
*0642                                                              MT50 00095016
*011400,044400-045400,045800,051190,063800,066600,072620,074800-   I272 00095319
*076800,08100-081600,084000,085660-085720,090800-091000            I272 00095619
*016400,017600,027200-029600,029610-029630,029800-0302008031000    I272 00095919
*036500,043414-043597,043633-043642,080400,099200-099400           I272 00096219
*0298008031120,031200-031405,031420,031420,031490-031500           099  00096519
* 030890-030917,030935-031023,031502                              M4012 00096719
*2229056500-056700                                                17464 00097017
*2842                                                          PTM17052 00098017
*                                                                 M4137 00099018
* 031293-031294                                                   M3164 00099219
*                                                                 M4373 00099519
* 030926-031261                                                   M2945 00099719
*********************************************************************** 00100000
*                                                                     * 00120000
*             VMS ALLOCATE ENTRANCE/ATTACH INTERFACE MODULE           * 00140000
*                                                                     * 00160000
*********************************************************************** 00180000
*                                                                     * 00200000
* STATUS-      CHANGE LEVEL - 0                                       * 00220000
* FUNCTION: 1. COMPLETE ENTRANCE INTERFACE FOR ALLOCATE               * 00240000
*           1A.ENTRANCE INTERFACE FOR TIOT WRITE (IEFSD514) ROUTIN CR17 00250017
*           1B.UPDATE THE CSCB - SCAN THE SIOT FOR IEFRDER IF TASK I272 00252019
*              NAME IS 'STARTING'  - SCAN THE TIOT ON RETURN       I272 00254019
*              FROM ALLOCATION FOR IEFRDER.                             00256019
*           2. DETERMINE (BY ALLOCATE EXIT PARAMETER) WHETHER OR NOT  * 00260000
*              STEP SHOULD BE ATTACHED. IF SO,BUILD AN ATTACH         * 00280000
*              PARAMETER LIST FOR ATTACH.  IF NOT, PASS THE ALLOCATE  * 00300000
*              EXIT PARAMETER LIST TO IEFSD165                        * 00320000
*           3. IF OPEN JOBLIB OR OPEN FETCH DATASET FAILS, ATTACH     * 00340000
*              IEFSDOXX INSTEAD OF THE USERS JOB STEP. THIS WILL      * 00360000
*              FAIL ON THE OPEN AGAIN AND ABEND THE JOB STEP.         * 00380000
*           4. CONDITIONALLY LINK TO IEFDSOWR TO WRITE JOB          099 00385019
*              SEPARATORS AND/OR SYSTEM MESSAGES (SMB'S)            099 00390019
*              FOR DIRECT SYSOUT DATA SETS.                         099 00395019
*                                                                     * 00400000
*  ENTRY POINT:  IEFSD162 FROM IEFSD161, IEFSD164, AND IEFSD165.      * 00420000
*                IEFSD62A FROM IEFSD164 FOR IMMEDIATE RESTART      CR17 00430017
*                                                                     * 00440000
*  INPUT:  1.  LCT POINTED TO BY REGISTER ONE                         * 00460000
*           2. LPMOD VALUE IN 1ST BYTE OF LCTODRTY                    * 00480000
*           3. IF THE ENTRY IS TO IEFSD62A,REGISTER 1 POINTS TO TH CR17 00481017
*              PARAMETER LIST THAT CONTAINS-                       CR17 00482017
*                                           *************          CR17 00483017
*                                           *    LCT    *          CR17 00484017
*                                           *************          CR17 00485017
*                                           *    JCT    *          CR17 00486017
*                                           *************          CR17 00487017
*                                           *    SCT    *          CR17 00488017
*                                           *************          CR17 00489017
*                                           * TIOT LIST *          CR17 00490017
*                                           *************          CR17 00491017
*                                                                     * 00500000
* OUTPUT:   1. IF ALLOCATE EXIT PARAMETER INDICATES BYPASS ATTACH,   * 00520000
*              R1 POINTS TO******************************************** 00540000
*                                                 * LCT POINTER       * 00560000
*                                                 ********************* 00580000
*                                                 * JCT POINTER       * 00600000
*                                                 ********************* 00620000
*                                                 * SCT POINTER       * 00640000
*                                                 ********************* 00660000
*                                                 * TIOTLIST POINTER  * 00680000
*                                                 ********************* 00700000
*                                                 * ZERO              * 00720000
*                                                 ********************* 00740000
*            2. IF ALLOCATE EXIT PARAMETER INDICATES ATTACH,          * 00760000
*               R1 POINTS TO******************************************* 00780000
*                                    * USER PARAMS POINTER            * 00800000
*                                    ********************************** 00820000
*                                   * ECB LIST ADDRESS                * 00840000
*                                    ********************************** 00860000
*                                   * SUPERVISOR LIST ADDRESS         * 00880000
*                                    ********************************** 00900000
*                                   * LCT ADDRESS                     * 00920000
*                                    ********************************** 00940000
*                                   * INITIATOR TCB ADDRESS           * 00960000
*                                    ********************************** 00980000
*                                   * TIOT ADDRESS                    * 01000000
*                                    ********************************** 01020000
*                                   * DCB ADDRESS                  I270 01026019
*                                    ***************************   I270 01032019
* EXTERNAL ROUTINES-     IEFW21SD,IEFOMRAW,IEFSD514                CR17 01040017
*                        IEFDSDWR                                   099 01050019
*                                                                     * 01060000
* EXITS-       IEFSD163  (ATTACH JOB STEP)                            * 01080000
*              IEFSD165  (DO NOT ATTACH JOB STEP)                     * 01100000
*              IEFSD161 (JOB SELECT)                                099 01110019
*                                                                     * 01120000
* TABLES/WORK AREAS  LCT,JCT,SCT,CSCB,SIOT,TIOT,GWT                I272 01140019
*                                                                     * 01160000
* ATTRIBUTES-  READ ONLY AND REENTRANT                                * 01180000
*                                                                     * 01200000
*********************************************************************** 01220000
         EJECT                                                          01240000
R0       EQU   0                                                        01260000
R1       EQU   1                                                        01280000
R2       EQU   2                                                        01300000
R3       EQU   3                                                        01320000
R4       EQU   4                                                        01340000
R5       EQU   5                                                        01360000
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R6       EQU   6                                                        01380000
R7       EQU   7                                                        01400000
R8       EQU   8                                                        01420000
R9       EQU   9                                                        01440000
R10      EQU   10                                                       01460000
R11      EQU   11                                                       01480000
R12      EQU   12                                                       01500000
R13      EQU   13                                                       01520000
R14      EQU   14                                                       01540000
R15      EQU   15                                                       01560000
         EJECT                                                          01580000
         BALR  R12,0                                                    01600000
         USING IEFPARAM,R11                                             01620000
         USING IOPARAMS,R9                                              01660000
         USING  IEFLOT,R8                                               01680000
         USING IEFJCT,R7                                                01700000
         USING IEFSCT,R6                                                01720000
         USING IEFCSCB,R5                                               01740000
         USING *,R12                                                    01780000
         B     FIRST                                               CR17 01781017
IEFSD62A BALR  R12,0                                               CR17 01782017
         LA    R11,IEFSD62A-IEFSD062                               CR17 01783017
         SR    R12,R11                INITIALIZE BASE REG.12       CR17 01784017
         L     R8,0(R1)               LCT  - BASE REG.             CR17 01785017
         L     R7,4(R1)               JCT  - BASE REG.             CR17 01786017
         L     R6,8(R1)               SCT  - BASE REG.             CR17 01787017
         LR    R2,R1                  PARAM LIST ADDR.(APL')       CR17 01787219
         LA    R9,QMGR1               ADDR OF QMPA                 CR17 01787419
         L     R1,CVTPTR         POINTER TO CVT                    I272 01787619
         USING IEFCVT,R1                                           I272 01787819
         L     R1,CVTTCBP        POINTER TO NEW/OLD TCB            I272 01788019
         DROP  R1                                                  I272 01788219
         L     R1,X4(R1)         ADDRESS OF CURRENT TCB            I272 01788419
         ST    R1,LCTTCBAD       STORE TCB ADDRESS IN LCT          I272 01788619
         L     R3,TCBJSCB(R1)    ADDRESS OF INIT JSCB              I272 01788819
         L     R0,LCTJSCB        ADDRESS OF JOB STEP JSCB          I272 01789019
         ST    R3,LCTJSCB        PUT JOB STEP JSCB IN INIT TCB     I272 01789219
         ST    R0,TCBJSCB(R1)    FOR REFERENCE BY OPEN             I272 01789419
         XC    LCTPARM4(4),LCTPARM4   ZERO OUT LCTPARM4 FOR REGI   CR17 01790017
         B     SD062030                                            CR17 01791017
         EJECT                                                          01800000
*********************************************************************** 01820000
*                                                                     * 01840000
*  THIS  SECTION OF CODE IS FOR PROVIDING A METHOD OF IDENTIFYING     * 01860000
*                THIS MODULE IN A MEMORY DUMP                         * 01880000
*                                                                     * 01900000
         DC    X'CCCC'                EYE-CATCHER                       01940000
         DC    C'IEFSD162'                                              01960000
         DC    X'05031966'                                              01980000
         DC    X'CCCC'                EYE-CATCHER                       02000000
FIRST    DS    0H                                                       02020000
*                                                                     * 02040000
*********************************************************************** 02060000
         EJECT                                                          02080000
*********************************************************************** 02100000
*                                                                     * 02120000
*  THE FOLLOWING SECTION OF CODE BRANCHES TO THE ALLOCATE SUBROUTINE  * 02140000
*   AND,UPON ALLOCATE'S RETURN, CHECKS A RETURN CODE IN R15. IF R15 IS * 02160000
*   ZERO, PROCESSING CONTINUES NORMALLY. IF R15 IS NOT ZERO, THE        * 02180000
*   ATTACH MODULE (IEFSD063) IS BYPASSED                                * 02200000
*   LINKING TO IEFDSOWR IS ALSO PERFORMED TO HANDLE WRITING JOB     099 02206019
*   SEPARATORS AND SMB'S IF DIRECT SYSOUT (DSO) IS ACTIVE FOR JOB   099 02212019
*                                                                       * 02220000
************************************************************************ 02240000
*                                                                       * 02260000
          LR    R8,R1                       ADDRESS OF LCT                02280000
          L     R6,LCTSCTAD                 ADDR OF SCT.             CR17 02480017
          L     R7,LCTJCTAD             JCT ADDRESS FROM LCT         I272 02580019
          LA    R9,OMGR1                    LOAD ADDR OF OMGR PARAM AREA  02585019
          L     R3,OMCAP                    PTR TO TRK STACK INFO         02590019
          SR    R5,R5                                                     02595019
          IC    R5,0(R3)                    LOAD NO. OF BUFFERS IN STACK  02600019
          LTR   R5,R5                       IF IT IS ZERO,                02605019
          BC    8,IEFSD022                  BRANCH AROUND                 02610019
          GETMAIN R,LV=72                   GET CORE FOR REG SAVE AREA    02615019
          LR    R13,R1                      LOAD ITS ADDR INTO REG        02620019
          LA    R1,OMGR1                    PTR TO MAIN OMPA              02625019
          L     R15,IEFSDSTI                ADDR OF STACK INIT. RTN       02630019
          BALR  R14,R15                     GO GET STACK                  02635019
*                                                                         02640019
IEFSD022  EQU   *                                                         02645019
          L     R5,LCTQDRTY             ADDRESS OF CSCB              I272 02650019
          TM    CHSWT,CHSYS             TEST FOR SYSTEM TASK         I272 02655019
          BZ    IEFSD024                BRANCH NOT SYSTEM TASK       I272 02660019
          CLC   SCTSCLPC(X8),ACSTARTG  TASKNAME ON COMMAND           I272 02665019
          BNE   SKIPSCAN                TASK SPECIFIED SKIP SCAN     I272 02670019
          LA    R0,X256                 GET CORE  8 BYTES FOR PARM.  I272 02675019
          GETMAIN  R,LV=(0)             176 BYTES FOR READ AREA, 72 RSA I272 02680019
          LR    R3,R1                   ADDRESS OFEXTERNAL LIST      I272 02685019
          LA    R10,X8(R3)               ADDRESS OF READ IN AREA     I272 02690019
          LA    R13,X184(R3)            ADDRESS OF REG SAVE AREA     I272 02695019
          USING SIOT,R10                TEMP SIOT BASE                    02700019
          ST    R10,X0(R3)               ADDRESS OF READ IN AREA     I272 02705019
          MVC   X4(X4,R3),SCTFSIOT       TTR OF SIOT FROM SCT        I272 02710019
          CLI   SCTNSIOT,NOSIOTS         ARE THERE ANY SIOTS         I272 02715019
          BE    NODDRDER                 BRANCH NO SIOTS             I272 02720019
          SR    R2,R2                   ZERO REGISTER                I272 02725019
          IC    R2,SCTNSIOT             NUMBER OF SIOTS              I272 02730019
          ST    R3,OMPCM                 PARM LIST                   I272 02735019
          MVI   OMPCM,ONEREC             READ ONE RECORD             I272 02740019
          MVI   OMPOP,READCODE           READ OP CODE                I272 02745019
REREAD    L     R15,IEFQMGRV            ADDRESS OF IEFQMRAW          I272 02750019
          LR    R1,R9                   ADDRESS OF OMPA              I272 02755019
          BALR  R14,R15                                              I272 02760019
          LTR   R15,R15                 TEST FOR IO ERROR            I272 02765019
          BNE   SD062015                BRANCH I/O ERROR             I272 02770019
          CLC   SCTDDNAM(X8),IEFRDER   IS DDNAME IEFRDER             I272 02775019
          BE    DDRDER                  BRANCH YES                   I272 02780019
          BCT   R2,NEXTTTR              GET NEXT TTR                 I272 02785019
          B     NODDRDER                IEFRDER NOT FOUND DEFAULT PROC I272 02790019
NEXTTTR   MVC   X4(X4,R3),SCTPSIOT     TTR OF NEXT TTR IN CHAIN      I272 02795019
          B     REREAD                                               I272 02800019
NODDRDER  MVC   CHKEY(X8),JCTJNAME MOVE PROC TO CSCB AS TASK NAME    I272 02805019
          MVC   SCTSNAME(X8),JCTJNAME  MAKE JOBNAME STEPNAME         I272 02810019
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         B      IEF16205                                           I272 02815019
SKIPSCAN MVC    SCTSNAME(X8),SCTSCLPC  MOVE TASKNAME TO STEP NAME  I272 02830019
         MVI    SCTSCLPC,BLANK        INSERT BLANK                 I272 02835019
         MVC    SCTSCLPC+X1(X7),SCTSCLPC  BLANK STEP               I272 02840019
         B      IEFSD024                                           I272 02845019
DDRDER   CLC    SCTUTYPE(X4),BLANKFW  IS UNIT TYPE SPECIFIED       I272 02850019
         BE     NODDRDER              BRANCH ON NO UNIT            I272 02855019
         MVC    SCTSNAME(X8),SCTUTYPE  SAVE UNIT NAME IN SCT       I272 02860019
         MVC    CHKEY(X8),SCTUTYPE  SAVE UNIT WANTED IN CSCB       I272 02865019
IEF16205 EQU    *                                                  I272 02870019
         MVI    SCTSCLPC,BLANK        INSERT BLANK                 I272 02875019
         MVC    SCTSCLPC+X1(X7),SCTSCLPC  BLANK STEP THAT CALLED   I272 02880019
         DROP R10                                                       02885019
         USING IEFTIOT,R10                                         I272 02890019
         OI     LCTINTSW,LCTSTART  SET SWITCH                      I272 02895019
         L      R10,LCTTCBAD       ADDRESS OF INIT'S TCB           I272 02896019
         L      R10,TCBTIO(R10)    ADDRESS OF TIOT                 I272 02897019
         MVC    TIOCSTEP(X8),CHKEY TIOT STEP NAME = CHKEY          I272 02898019
         LR     R1,R3              SET UP TO FREE READIN AREA      I272 02900019
         LA R0,X256                LENGTH TO BE FREED              I272 02902019
         FREEMAIN  R,LV=(0),A=(1)  FREE CORE                       I272 02905019
IEFSD024 EQU    *                                                  I272 02910019
         L      R2,LCTPARM3          SAVE GWT ADDRESS IN REG       I272 02930019
         CLI    LCTPARM3,X'8'           DID AN ERROR OCCUR IN IEFS LS17 02964017
         BNE    IEF06223               NO ERROR                    LS17 02965017
         OC     SCTMSADR(4),SCTMSADR   IS THIS A SPECIFIC REQUEST  CR17 02966017
         BE     SD162F3                 NON-SPECIFIC               CR17 02967017
         MVI    LCTPARM3,X'4'           ERROR IN SPECIFIC REQUEST  CR17 02968017
SD162F3  OI     JCTJSTAT,INCMSTS        TURN ON JOB FAILED BIT     CR17 02969017
IEF06223 EQU    *                                                  CR17 02970017
*                                                                  I272 02970519
* ALLOCATION AND OPEN WILL NEED TO REFERENCE THE JOB STEP'S        I272 02971019
* WRITE TO PROGRAMER CONTROL BLOCK.  THEREFORE THE SUBTASKS        I272 02971519
* JSCB WILL BE IN THE INITIATOR'S TCB.  THE JSCB FOR THE INIT      I272 02972019
* WILL BE KEPT IN THE LCT                                          I272 02972519
         L      R4,LCTTCBAD        ADDRESS OF INIT TCB             I272 02973019
         L      R3,LCTJSCB         JOB STEP JSCB                   I272 02973519
         L      R0,TCBJSCB(R4)     INIT'S JSCB                     I272 02974019
         ST     R3,TCBJSCB(R4)     JOB STEP JSCB IN INIT TCB       I272 02974519
         ST     R0,LCTJSCB         INIT'S JSCB IN LCT              I272 02975019
         LA     R0,X104   GETMAIN SIZE                              099 02976019
         LA     R1,TCORE           LOAD SUBPOOL                    I272 02982019
         SLL    R1,X24             SUBPOOL IN HIGH ORDER BYTE      I272 02988019
         OR     R0,R1              SUBPOOL AND LENGTH              I272 02994019
*                 FOLLOWING GETMAIN INCLUDES 8 BYTES FOR A          099 03000019
*                 PARAMETER AREA TO BE PASSED TO IEFDSOWR.          099 03006019
*                 SAVEAREA IS RE-USED WHEN LINKING TO SAME.         099 03012019
*                                                                   099 03018019
         GETMAIN  R,LV=(0)         72 BYTE SAVE AREA 24 PARM AREA  I272 03024019
         LA     R13,X24(R1)        ADDRESS OF SAVE AREA            I272 03030019
         L      R3,LCTJCTAD            JCT ADDRESS FROM LCT             03040000
         ST     R3,4(0,R1)             TO PARAMETER LIST                03060000
         ST     R8,0(0,R1)             LCT ADDRESS TO PAR LST           03080000
         TM     JCTJSTAT,INCMSTS    HAS JOB BEEN PREVIOUSLY FAILED  099 03080919
         BO     DSOOK               YES-DON'T DO ANY DSO PROCESSING 099 03081819
         CLC    SCTPGMNM(EIGHT),RESTART   IS STEP RESTARTING FROM M3150 03082719
*                                   A CHECKPOINT?                   099 03083619
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         BNE   DSOOK                      NO- DON'T DO DSO RESTART CHECK   099 03084519
         TM    JCTRSW2,JCTDSOJB+JCTDSOCR IS DSO RESTART ENVIRONMENT 099 03085419
*                                         CHECK NEEDED?                    099 03086319
         BZ    DSOOK                      NO-BYPASS LINK TO IEFDSOCR       099 03087219
         LINK  EP=IEFDSOCR,MF=(E,(1)) LINK TO IEFDSOCR                     099 03088119
         LTR   R4,R15               IS JOB TO RUN                        M4012 03089119
         BNZ   FREEUP               NO - FREE RESOURCES                  M4012 03090119
*                                   YES - GO TO ALLOCATION               M4012 03090119
         XC    JCTDSOSM(N3),JCTDSOSM  FORCE DSO MSG REBUILD              M4012 03091119
DSOOK    EQU   *                                                         M2945 03091819
         TM    LCTOPSW1,LCTCANF     TEST FOR CANCELLABLE                   099 03092119
         BZ    ALLOCATE             BRANCH IF ALREADY CANCELLABLE         I272 03092419
         LR    R3,R1                SAVE PARM REGISTER                    I272 03092719
         ENQ   MF=(E,SYSCMD)        ENQUEUE TO MAKE SYSTEM                I272 03093019
*                                          TASK CANCELLABLE               I272 03093319
         LR    R1,R3                RESTORE PARM REGISTER                 I272 03093619
         OI    CHACT,CHCL           SET CANCELABLE BIT                    I272 03093919
ALLOCATE EQU   *                                                          I272 03094219
         SR    R4,R4                 CLEAR REGISTER FOR SWITCH             099 03094519
         LINK  EP=IEFW21SD,MF=(E,(1))                                      099 03094819
*                                                                          099 03095119
FREEUP   EQU   *                                                           099 03095419
         ST    R2,LCTPARM3           RESTORE SAVED GWT ADDRESS             099 03095719
         LR    R3,R15                       SAVE RETURN CODE              I272 03096019
         LR    R2,R1                        SAVE NEW PARAMETER LIST ADDRESS 03096319
         TM    LCTOPSW1,LCTCANF     TEST FOR CANCELABLE TASK                  03096619
         BZ    IEFSD005             BRANCH IF CANCELABLE TASK             I272 03096919
         NI    CHACT,X255-CHCL       RESET TO NON-CANCELLABLE             I272 03097219
         DEQ   MF=(E,SYSCMD)        RELEASE                               I272 03097519
IEFSD005 EQU   *                                                          I272 03097819
*                                                                         I272 03098119
* CONDITIONALLY LINK TO IEFDSOWR                                           099 03098419
*                                                                          099 03098719
* * * * * * * * * * *                                                      099 03099019
JCTJOBFL EQU   64    BIT-1  JOB FLUSH                                      099 03099319
JCTSTPFL EQU   16    BIT-3  STEP FLUSH                                     099 03099619
* * * * * * * * * * *                                                      099 03099919
*                                                                          099 03100219
         TM    JCTRSW2,JCTDSOJB     ARE THERE ANY DSOCB'S FOR JOB          099 03100519
         BZ    DSOCOMP   NO-BYPASS LINK                                    099 03100819
*                                                                          099 03101119
         CLC   SCTPGMNM,RSTRTCK     IS C/R DSDR PHASE BEING                099 03101419
*                                   ALLOCATTED                             099 03101719
         BE    DSOCOMP   YES - BYPASS LINK                                 099 03102019
*                                                                          099 03102319
         OC    JCTDSOSM,JCTDSOSM      WAS FIRST SMB HANDLED                099 03102619
         BNZ   FAILTEST                  YES- BYPASS SMB CONSTRUCTION099 03103219
         GETMAIN R,LV=176                GET CORE FOR READ IN AREA         099 03103519
         ST    R1,N72(,R13)              SAVE POINTER IN EXT PARM          099 03103819
         LA    R1,N72(,R13)              GET POINTER TO EXT PARM AREA099 03104119
         MVC   N4(N3,R1),JCTSMBAD        MOVE IN TTR OF 1ST SMB            099 03104419
         MVI   N7(R1),NO                 ZERO OUT LOW ORDER BYTE           099 03104719
         ST    R1,QMPCL                  EXT PARM AREA TO QMPA             099 03105019
         MVI   QMPOP,QMREAD              INDICATE READ                     099 03105319
QMGRRW   MVI   QMPNC,N1                  OF ONE RECORD                     099 03105619
         LR    R1,R9                    R1 MUST POINT TO QMPA              099 03105919
         L     R15,IEFQMGRV             GO TO Q MANAGER                    099 03106219
         BALR  R14,R15                                                  099 03106519
         LTR   R15,R15                    WAS READ OK                   099 03106819
         BNZ   SD062015                  BRANCH NO THERE WAS ERROR      099 03107119
*                                                                       099 03107419
*   N  O  T  E  -  R2,R3,R4,R5,R6,R7,R8 ARE BEING SAVED                 099 03107719
*                                                                       099 03108019
         STM   R2,R8,NC(R13)             STORE SOME REGISTERS TO        099 03108319
*                                         ALLOW FOR WORK REGISTERS.     099 03108619
         CLI   QMPOP,QMWRTE               EAS WRITE DONE                099 03108919
         BE    SMBOUT                     B-YES.                        099 03109219
         L     R2,QMPCL                   GET POINTER TO EXTBARM AREA   099 03109519
         L     R2,NO(R2)                  GET POINTER TO SMB            099 03109819
         LA    R2,NO(R2)                 CLEAR HI ORDER BYTE            099 03110119
         USING SMBDSKAD,R2                                              099 03110419
         LA    R3,SMBHDR+1           GET  OFFSET TO SMBMESSAGE AREA     099 03110719
         LA    R3,L'DSOMSG(,R3)      GET  INCREMENT FOR R3              099 03111019
         L     R8,CVTPTR                  LOCATION OF CVT               099 03111319
         USING  IEFCVT,R8                                               099 03111619
         L     R8,CVTMSER                 ADDR OF MAST SCHED DATA AREA099 03111919
         USING BASE,R8                    M/S BASE REG                  099 03112219
*                                                                       099 03112519
         ENQ   MF=(E,DSOCBNQ)        ENQ ON DSOCB CHAIN                 099 03112819
         L     R8,BADSO                   FIRST DSOCB ADDR              099 03113119
         USING IEFDSOCB,R8                SET BASE FOR DSOCB            099 03113419
DSOCBLP  LA    R8,NO(R8)                  CLEAR HIGH ORDER BYTE         099 03113719
         LTR   R8,R8                      ANY MORE DSOCBS               099 03114019
         BZ    WRTOUT                     NO- BRANCH TO WRITE SMB       099 03114319
         CLC   DSOKEY,JCTJSRNO            IS THIS A SELECTED  DSOCB     099 03114619
         BE    MSGSETUP                   YES GO TO SET UP MESSAGE      099 03114919
NXTDSO   L     R8,DSONXT                  GET A OF NEXT DSOCB           099 03115219
         B     DSOCBLP                     + GO TO LOOP                 099 03115519
MSGSETUP  EQU  *                                                        099 03115819
         TM    DSOIND1,DSOCR+DSONOOP      TEST IF DSOCB NOT TO BE ALLC099 03116119
         BNZ   NXTDSO                     IF YES-GET NEXT DSOCB         099 03116419
         MVC   NO(N1,R3),DSOSCLS       MOVE SYSOUT CLASS TO MESSAGE     099 03116719
         MVI   N1(R3),COMMA              AND FOLLOW IT BY COMMA         099 03117019
         LA    R3,N2(R3)                  INCREMENT R3 BY 2             099 03117319
         B     NXTDSO                     AND CONTINUE LOOP             099 03117619
WRTOUT   EQU   *                                                        099 03117919
         DEQ   MF=(E,DSOCBNQ)        DEQ ON DSOCB CHAIN                 099 03118219
         LA    R4,SMBHDR+1               SET UP TO WRITE OUT MESSAGE    099 03118519
         LA    R4,L'DSOMSG(,R4)          SET R4 TO MATCH WITH R3        099 03118819
         CR    R3,R4                     EQUAL MEANS NO MESSAGE         099 03119119
         BE    SMBOUT                    LB NOT TO WRITE MESSAGE        099 03119419
         MVI   NO(R3),NO  ZERO NXT AVAILABLE BYTE INCASE              M2945 03119719
*                         MSG IS BEING REBUILT FROM A RESTART         M2945 03120019
         BCTR  R3,RO                      DECREMENT COUNTER BY 1        099 03126219
         MVI   NO(R3),PERIOD      OVERLAY LAST COMMA WITH PERIOD        099 03126319
         LA    R4,SMBHDR                  GET SMB HEADER LENGTH         099 03126419
         SR    R3,R4                      CONVERT R3 TO MSGLNGTH        099 03126519
         STC   R3,SMBMSGLN                + STORE IT IN SMBMSGLNGTH     099 03126619
         LA    R3,N1(,R3)       INCREMENT BY 1 TP GET NEXT AVAIL BT     099 03126719
         STH   R3,SMBNABPT                INDICATE NEXT AVAILABLE BYTE099 03126819
         LA    R3,SMBHDR+1           GET  OFFSET TO SMBMESSAGE AREA     099 03126919
         MVC   NO(L'DSOMSG,R3),DSOMSG MOVE IN MESSAGE HEADER            099 03127019
         MVI   QMPOP,QMWRTE               INDICATE WRITE OPERATION      099 03127119
*                                                                       099 03127219
*  N  O  T  E  -  R2,R3,R4,R5,R6,R7,R8 ARE BEING RESTORED               099 03127319
*                                                                       099 03127419
         LM    R2,R8,NC(R13)            LOAD THE REGS                   099 03127519
         B     OMGRRV                                                   099 03127619
SMBOUT   EQU   *                                                        099 03127719
         MVC   JCTDSOSM(N3),JCTSMBAD  HAVE 1ST SMB POINTED TO TO        099 03127819
*                                        INDICATE SMB WAS HANDLED.      099 03127919
         L     R1,OMPCL  GET EPA                                        099 03128019
         L     R1,N0(,R1)     GET CORE ADR                              099 03128119
         FREEMAIN R,LV=176,A=(1)                                        099 03128219
*                                                                       099 03128319
*  N  O  T  E  -  R2,R3,R4,R5,R6,R7,R8 ARE BEING RESTORED               099 03128419
*                                                                       099 03128519
         LM    R2,R8,NC(R13)            LOAD THE REGS                   099 03128619
         DROP  R2                                                       099 03128719
*                                                                       099 03128819
*  RE-SET LCT BASE                                                      099 03128919
         USING IEFLCT,R8                                                099 03129019
*                                                                       099 03129119
FAILTEST  EQU  *                                                        099 03129219
         TM    JCTJSTAT,JCTJOBFL+JCTSTPFL  HAS JOB/STEP FAILED        M3164 03129319
         BNZ   DSOCOMP   YES-BYPASS LINK                                099 03129519
*                                                                       099 03129619
         LTR   R3,R3      ANY ALLOCATION ERRORS                         099 03129719
         BNZ   DSOCOMP   YES- BYPASS LINK                               099 03129819
*                                                                       099 03129919
         TM    SCTSTAT2,SCTDSOCL   DID IEFDSOAL IN ALLOCATION           099 03130019
*                                  FIND WORK FOR IEFDSOWR               099 03130119
         BZ    DSOCOMP   NO - BYPASS LINK                               099 03130219
*                                                                       099 03130319
*                            LINK TO IEFDSOWR                           099 03130419
*                                                                       099 03130519
         LA    R1,N72(,R13)   GET 8 BYTE PARM AREA                      099 03130619
         ST    R8,N0(,R1)      LCT ADR                                  099 03130719
         MVC   N4(N4,R1),IEFOMGRV  OMGR ADR                             099 03130819
*                                                                       099 03130919
         LINK  EP=IEFDSOWR,MF=(E,(1))                                   099 03131019
*                                                                       099 03131119
*                                                                       099 03131219
* * * RETURN CODES AND SETTING R3                                       099 03131319
*        1. LINK TO IEFDSOWR ETC IS BYPASSED IF ALLOCATION/IEFDSOCR     099 03131419
*           RETURNS A NON-ZERO RETURN CODE.  SEE ABOVE CODE.            099 03131519
*        2. IF ZERO RETURN CODE FROM ALLOCATION THEN -                  099 03131619
*           A. IF IEFDSOWR ENCOUNTERS A JOBO I/O ERROR A                099 03131719
*              RETURN CODE OF 12 WILL BE SENT BACK INDICATING           099 03131819
*              JOB SHOULD BE ABENDED WITH A 'OBO'.  R3 WILL             099 03131919
*              BE MADE NEG IN THIS CASE SO THIS PROG CAN                099 03132019
*              DO FREEMAIN ETC BEFORE ABEND.                            099 03132119
*           B. IF IEFDSOWR ENCOUNTERS A PERMANENT I/O ERROR             099 03132219
*              WHILE WRITING JOB SEPARATORS OR SMB'S TO A               099 03132319
*              DIRECT DEVICE THEN A RETURN CODE OF 4 WILL               099 03132419
*              BE SENT BACK INDICATING THE JOB IS TO BE FAILED.         099 03132519
*              R3 WILL BE SET PLUS AND WILL CAUSE THIS PROG TO          099 03132619
*              TAKE THE SAME ROUTE THAT IS TAKEN WHEN ALLOCATION        099 03132719
*              RETURNS A NON-ZERO RETURN CODE.                          099 03132819
*                                                                       099 03132919
         LNR   R3,R15    PRIME FOR POSSIBLE ABEND AND SAVE -            099 03133019
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*                        NOTE - A ZERO VALUE REMAINS UNCHANGED       099 03133119
*                               AND PLUS                             099 03133219
        LTR   R15,R15    ANY ERRORS                                  099 03133319
        BZ    DSOCOMP    NO-CONT MAINLINE                            099 03133419
*                                                                    099 03133519
        LA    R1,N8      YES-SET-UP TO TEST COND CODE                099 03133619
        CR    R15,R1     TEST IF ABOVE/BELOW 8                       099 03133719
        BH    DSOCOMP    HIGH-COND CODE 12 = JOBQ I/O ERROR          099 03133819
*                        KEEP R3 NEG FOR ABEND LATER                 099 03133919
*  COND CODE 8 NOT IN USE                                            099 03134019
        LR    R3,R15     LOW-COND CODE 4 = I/O ERROR ON DSO          099 03134119
*                        DEVICE WHILE WRITING SMB'S, ETC.  PRIME     099 03134219
*                        R3 TO BYPASS EXECUTION OF P/P.              099 03134319
*                        R3 NOW POSITIVE                             099 03134419
        OI    JCTJSTAT,INCMSTS     TURN ON JOB FAIL BIT              099 03134519
*                                                                    099 03134619
DSOCOMP EQU   *          CONT MAINLINE                               099 03134719
        NI    SCTSTAT2,N255-SCTDSOCL    RESET FOR TERMINATION        099 03134819
*                                                                    099 03134919
        LR    R1,R13                    RESTORE ARSA POINTER.       CR17 03141017
        FREEMAIN R,LV=80,A=(1),SP=TCORE  FREE SAVE AND PARM AREA     099 03141219
*                                                                    099 03141419
        LTR   R3,R3                     SHOUD ATTACH BE BYPASSED.   CR17 03141619
        BZ    IEFSD010                  NO.                         CR17 03141819
        L     R1,LCTTCBAD         ADDRESS OF INIT'S TCB             1272 03142019
        L     R14,TCBJSCB(R1)     JOB STEP JSCB                     1272 03142219
        L     R0,LCTJSCB          INIT'S JSCB                       1272 03142419
        ST    R14,LCTJSCB         JOB STEP JSCB IN LCT              1272 03142619
        ST    R0,TCBJSCB(R1)      INIT'S JSCB IN INIT'S TCB         1272 03142819
        L     R14,LCTEXIT         ADDRESS OF EXIT LIST              1272 03143019
        LA    R14,X0(R14)         ZERO HIGH ORDER BYTE              1272 03143219
*  ***** TEST FOR EXIT LIST TO BE REMOVED IN R20 *****              1272 03143419
        LTR   R14,R14             TEST FOR EXIT LIST                1272 03143619
        BZ    FREEGWT             BRANCH NO EXIT LIST               1272 03143819
        MVI   IELRTNCD(R14),RTNCODE4 SET RETURN CODE TO 4           1272 03144019
FREEGWT EQU   *                                                     1272 03144219
        LA    R14,TCORE            YES. LOAD SUBPOOL NO.            CR17 03145017
        SLL   R14,24                                                CR17 03146017
        LA    R0,GPMINPAR+4-GETPTWT     LOAD LENGTH OF GETPART WK   LS17 03146119
        OR    R0,R14                    LOAD SUBPOOL + LENGTH       LS17 03146219
        L     R1,LCTPARM3         LOAD ADDRESS OF GWT               1272 03146319
        FREEMAIN  R,LV=(0),A=(1)        FREE ITS CORE               LS17 03146419
        LTR   R3,R3      TEST REG STATUS                             099 03146519
        BM    SD062015   NEG REG - JOBQ I/O ERROR FROM               099 03146619
*                        IEFDSOWR, GO TO ABEND                       099 03146719
        LTR   R4,R4                IS THIS ABNORMAL RETURN FROM      099 03146819
*                                  IEFDSOCR?                         099 03146919
        BZ    T0165                NO-GO TO IEFSD165                 099 03147019
        USING IEZJSCB,R1           JSCB ADDRESSABILITY              099  03147119
        L     R1,LCTJSCB          ADDRESS OF JOB STEP JSCB          099  03147219
        L     R14,JSCBWTP         ADDRESS OF WTP CONTROL BLK        099  03147319
        FREEJSCB  SYSTEM=MVT      FREE JSCB                         099  03147419
        DROP  R1                                                    099  03147519
        LR    R1,R14              ADDRESS OF WTPCB IN R1            099  03147619
        LA    R14,TCORE           SUBPOOL 253                       099  03147719
        SLL   R14,X24             SUBPOOL IN HIGH ORDER BYTE        099  03147819
        LA    R0,WTPCBSIZ         SIZE OF WTPCB                     099  03147919
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         LR    R0,R14                SUBPOOL AND SIZE IN REG 0          099  03148019
         FREEMAIN R,LV=(0),A=(1)     FREE WTPCB                         099  03148119
         L     R15,IEFSD161           IEFSD161 LINKAGE                   099 03149819
*                                     RETURN TO SELECT ANOTHER JOB       099 03150019
         LR    R1,R8            LCT ADR                                M4012 03150219
         BR    R15                    XCTL TO IEFSD161 VIA LINKAGE       099 03150419
*                                     MODULE                             099 03150619
TO165    EQU   *                                                         099 03150819
         L     R15,IEFSD65V                                             CR17 03151017
         LR    R1,R2                           RESTORE PARAM LIST PTR.  CR17 03152017
         BR    R15                             GO TO IEFSD065           CR17 03153017
*********************************************************************** CR17 03193017
*                                                                       CR17 03233017
* BUILD PARAM LIST FOR IEFSD514 TO WRITE OUT TIOT & GET REG SAVE A CR17 03273017
*                                                                       CR17 03313017
*********************************************************************** CR17 03353017
IEFSD010 EQU    *                                                       CR17 03393017
         CLI   CHVCD,SPROGRAM        CHECK FOR STARTED PROGRAM          I272 03394019
         BNE   IEFSD011              BRANCH NOT A STARTED TASK          I272 03395019
         L     R10,12(R2)            LOAD TIOT LIST PTR                 I272 03396019
         L     R10,0(R10)            PTR TO TIOT                        I272 03397019
TIOTSRCH CLC   TIOEDDNM(X8),IEFRDER  IS DDNAME IEFRDER                  I272 03398019
         BE    UCBADDR               BRANCH YES                         I272 03399019
         SR    R3,R3                 ZERO REGISTER                      I272 03400019
         IC    R3,TIOELNGH           LENGTH OF TIOT ENTRY               I272 03401019
         LTR   R3,R3                 TEST FOR END OF TIOT               I272 03402019
         BZ    NORDER                BRANCH END OF TIOT                 I272 03403019
         AR    R10,R3                ADD ENTRY LENGTH TO BASE           I272 03404019
         B     TIOTSRCH              TEST NEXT DD ENTRY                 I272 03405019
UCBADDR  L     R3,TIOESTTB           LOAD UCB POINTER                   I272 03406019
         LA    R3,X0(R3)              ZERO HIGH ORDER BYTE              I272 03407019
         LTR   R3,R3                 TEST FOR ZERO UCB REQUEST FOR      I272 03408019
*                                    DUMMY DEVICE                       I272 03409019
         BZ    NORDER                BRANCH IF ZERO                     I272 03410019
         USING UCBOB,R3              ADDRESSABILITY FOR UCB             I272 03411019
         CLI   UCBID,MAINUCB          IS IT A MAIN UCB                  I272 03412019
         BNE   MINORUCB              BRANCH IF DATACELL                 I272 03413019
MOVENAME MVC   CHUNIT(X3),UCBNAME     MOVE UCB NAME INTO CSCB           I272 03414019
         TM    LCTINTSW,LCTSTART     WAS TASK NAME ON COMMAND           I272 03415019
         BZ    IEFSD011              BRANCH NAME SPECIFIED              I272 03416019
         MVI   CHKEY,BLANK           MOVE IN BLANK                      I272 03417019
         MVC   CHKEY+X1(X7),CHKEY BLANK CHKEY FIELD                     I272 03418019
         MVC   CHKEY(X3),UCBNAME     MOVE UCB NAME INTO CSCB            I272 03419019
         B     TIOTKEY                                                  I272 03420019
         DROP  R3                                                       I272 03421019
MINORUCB LH    R4,DCELBBNR-DATACELL(R3)  PICK UP BIN NUMBER             I272 03422019
         LA    R4,X1(R4)              INITIALIZE FOR LOOP               I272 03423019
CHKSUB   BCT   R4,SUBUCBLN           SUBTRACT BRANCH ON ZERO            I272 03424019
         S     R3,MAINLGTH           SUBTRACH MAIN UCB LENGTH           I272 03425019
         B     MOVENAME                                                 I272 03426019
SUBUCBLN S     R3,SUBLGTH            SUBTRACT SUB UCB LENGTH            I272 03427019
         B     CHKSUB                CHECK FOR MORE SUBCELLS            I272 03428019
NORDER   TM    LCTINTSW,LCTSTART     WAS TASK NAME ON COMMAND           I272 03429019
         BZ    IEFSD011              BRANCH NAME SPECIFIED              I272 03430019
         MVC   CHKEY(X8),CHCLS       MOVE PROC NAME INTO ID FIELD       I272 03431019
TIOTKEY  L     R10,LCTTCBAD          ADDRESS OF INIT'S TCB              I272 03432019
         L     R10,TCBTIO(R10)       TIOT ADDRESS IN TCB                I272 03434019
         MVC   TIOCSTEP(X8),CHKEY TIOT STEP NAME = CHKEY           I272 03435019
         L     R10,12(R2)         LOAD TIOT LIST POINTER           I272 03435219
         L     R10,XD(R10)        PTR TO TIOT                      I272 03435419
         MVC   TIOCSTEP(X8),CHKEY TIOT STEP NAME = CHKEY           I272 03435619
IEFSD011 EQU   *                                                   I272 03436019
*                                                                     * 03460000
         GETMAIN    R,LV=96,SP=TCORE    GM 24-BYTE PARM LIST & 72- CR17 03463217
         LA    R13,24(R1)                REG SAVE AREA.            CR17 03464017
         ST    R9,0(R1)                 1ST WORK - OMPA PTR.       CR17 03464817
         XC    4(4,R1),4(R1)            2ND WORD - ZEROES.         CR17 03465617
         L     R7,12(R2)                GET TIOT LIST ADDR.        CR17 03466417
         MVC   8(8,R1),0(R7)            3RD & 4TH WORDS-TIOT ADDR+ CR17 03467217
         XC    16(8,R1),16(R1)          5TH & 6TH WORDS - ZEROES.  CR17 03468017
         LA    R7,REGSAVE+72            REMOTE PARAM AREA.         CR17 03468817
         ST    R7,OMPCL                                            CR17 03469617
         MVI   OMPOP,3                  INDICATE WRITE             CR17 03470417
         LR    R7,R1                    SAVE PARAM LIST & REG AREA CR17 03471217
         L     R15,SD514RTE                                        CR17 03472017
         BALR  R14,R15                  GO TO IEFSD514             CR17 03472817
         LTR   R15,R15                  ANY I/O ERROR.             CR17 03473617
         BNZ   SD062015                 YES.                       CR17 03474417
         LR    R1,R7                    NO.                        CR17 03475217
         L     R7,4(R2)                 RESTORE JCT BASE REG.      CR17 03476017
         MVC   JCTSTIOT(4),4(R1)        CONTROL TABLE TTR TO JCT.  CR17 03476817
         FREEMAIN   R,LV=96,A=(1),SP=TCORE FREE PARM LIST & REG AR CR17 03477617
*********************************************************************** 03480000
*                                                                     * 03500000
* WRITE OUT JCT & SCT TO ITS ORIGINAL POSITION ON THE QUEUE,AFTER  CR17 03520017
* SETTING CKPT/RESTART SWITCHES IN JCT FROM SCT.                   CR17 03540017
*                                                                     * 03560000
*********************************************************************** 03580000
*                                                                     * 03600000
*                                                                       03640000
         OI    172(R6),X'80'             SET STEP STARTED BIT IN THE SCT 03660000
         LA    R1,LCTTMWRK+4       2ND WORD OF TIMER AREA          CR17 03662017
         CLC   SCTSTIME,CEO        IS THIS A PROC STEP             CR17 03664017
         LA    R1,LCTTMWRK+4            2ND WORD OF TIMER AREA          03664418
         CLC   SCTSTIME,CEO             IS THIS A PROC STEP             03664818
         BE    STEPLEFT                 THE USER SPECIFIED TIME=        03665218
*                                       FOR THE WHOLE PROC.THAT         03665618
*                                       APPLIED TO 1ST STEP. NOW        03666018
*                                       WE SHALL USE WHAT IS LEFT.      03666418
         MVC   1(3,R1),SCTSTIME         ELSE MOVE IN TIME               03666818
STEPLEFT EQU   *                        *                               03667218
         MVC   SCTSTIME(3),1(R1)        MOVE TIME REMAINING TO SCT SMF1 03667618
         MVI   LCTTMWRK+DEC8,HEX00      IND THAT TIME VALUE IS     SMF1 03668018
*                                           FOR STEP               SMF1 03668418
         L     R14,JCTJMRTL             GET JOB TIME LIMIT         SMF1 03668818
         SRL   R14,DEC8                 *                          SMF1 03669218
         LTR   R14,R14                  IS THERE A JOB TIME LIMIT M4137 03669318
         BZ    IEFSD015                 NO, USE STEP TIME IN SCT  M4137 03669418
         CL    R14,HOURS24              DOES ORIG JOB TIME=1440         03669618
         BE    LONGJOB                  YES                             03670018
         S     R14,LCTTMWRK             GET JOB TIME LEFT          SMF1 03670418
         BNM   NOTMINUS                 SET TO ZERO IF MINUS       SMF1 03670818
         SR    R14,R14                  *                          SMF1 03671218
NOTMINUS EQU   *                        *                          SMF1 03671618
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         CL    R14,LCTTMWRK+DEC4        J. TIME LEFT GT S. TIME      SMF1 03672018
*                                              NEEDED                SMF1 03672418
         BNL   IEFSD015                 YES- USE STEP TIME FROM      SMF1 03672818
*                                              SCT                   SMF1 03673218
LONGJOB  EQU   *                        *                                 03673618
         ST    R14,DEC0(R1)             NO - USE JOB TIME LEFT       SMF1 03674018
         MVI   LCTTMWRK+DEC8,HEX80      IND THAT TIME IS FOR JOB     SMF1 03674418
IEFSD015 EQU   *                                                     CR17 03676017
         LA    R9,QMGR1                   A MGR PAR AREA                  03680000
         LA    R13,REGSAVE                REGISTER SAVE AREA              03700000
         LA    R1,REGSAVE+72              REMOTE PARAMETER AREA           03720000
         ST    R1,QMPCL                   ADDRESS OF REMOTE PARAMETER LST 03740000
         MVI   QMPOP,3                    WRITE INDICATOR                 03760000
         MVI   QMPCL,2                    INDICATE MULTIPLE OPERATION     03780000
         L     R7,4(0,R2)                 LOAD JCT BASE REGISTER          03800000
         ST    R7,0(0,R1)                 JCT CORE ADDRESS TO QUEUE MGR   03820000
*                                         REMOTE PARAMETER AREA           03840000
         ST    R6,8(0,R1)                 SCT CORE ADDRESS TO QUEUE MGR   03860000
*                                         REMOTE PARAMETER AREA           03880000
         NI    JCTRSW2,X'C7'              KNOCK OFF BITS 2,3 AND 4.  CR17 03886017
         LA    R4,MASK               LOAD MASK TO GET C/R BITS       CR17 03892017
MASK     EQU   X'38'                 LOAD MASK TO GET C/R BITS       CR17 03898017
         SR    R10,R10               ZERO REGISTER.                  CR17 03904017
         IC    R10,SCTSSTAT          LOAD STATUS INDICATORS          CR17 03910017
         NR    R10,R4                GET RID OF ALL BITS BUT C/R     CR17 03916017
         EX    R10,SETBITS           EXEC INSTRUCTION TO SET BITS    CR17 03922017
         MVC   4(4,R1),JCTDSKAD           JCT TTR TO QMPA.           CR17 03932017
         MVC   12(4,R1),SCTDISKA          SCT TTR TO QMPA.           CR17 03972017
         MVI   15(R1),X'00'               SCT TTR0                   CR17 04012017
         LR    R1,R9                      ADDRESS OF Q MGR PARAMETER AREA 04060000
         L     R15,IEFQMGRV               ADDRESS OF Q MGR                04080000
         BALR  R14,R15                    HAVE THE TABLES WRITTEN         04100000
         MVI   QMPCL,0                    ZERO OUT NUMBER OF OPERATIONS   04120000
         B     SD062010(R15)              CHECK RETURN CODE               04140000
SD062010 B     SD062020                   RETURN CODE OK                  04160000
         BC    0,SD062010                 NO WORK, IMPOSSIBLE ON WRITE    04180000
         BC    0,SD062010                 NO SPACE - IMPOSSIBLE, THESE    04200000
*                                         TABLES ARE BEING WRITTEN TO     04220000
*                                         ASSIGNED SPACE                  04240000
******************************   I/O ERROR                                04260000
******************************    CODE TO PROCESS THIS CONDITION          04280000
SD062015 LA    R1,X'0B0'                  SHOULD BE PLACED HERE.     CR17 04300017
         SLA   R1,12                TEMPORARILY, ABEND                    04320000
         ABEND (1),DUMP                                                   04340000
******************************                                       CR17 04340717
SD062020 XC    LCTPARM4(X4),LCTPARM4  ZERO PARM4                     I272 04341719
         L     R3,LCTPARM3           SET UP ADDRESSABILITY FOR       I272 04342719
         USING GETPTWT,R3            GET PART WORK TABLE             I272 04343719
         L     R14,LCTTCBAD         GET INITIATOR'S TCB.
         L     R1 ,TCBTIO(R14)      BUMP TO THE TIOT.
         CLI   0(,14),C'F'          FIXED INITIATOR?
         BE    SD062040             YES - BRANCH TO KEEP CURRENT REGION.
         L     R4,GPSIZEPP           REGION SIZE FOR P/P             I272 04344719
         LTR   R4,R4                 TEST FOR ZERO SIZE              I272 04345719
         BE    SD062040              BRANCH - KEEP REGION            I272 04346719
         MVI   GPSUBP,POOL246        REPLACE PARTITION SUBPOOL       I272 04347719
         TM    LCTINTSW,LCTIHIER     TEST FOR HIERARCHY              I272 04348719
         BO    SD062022             BRANCH HIERARCHY ONE             I272 04349719
         MVC   GPADDHO+X1(X3),GPADDHOR+X1  O OR SPECIFIC ADDR        I272 04350719
         MVC   GPSIZEHO+X1(X3),GPSIZEPP+X1  MOVE REGION SIZE         I272 04351719
         B     SD062040                                              I272 04352719
SD062022 MVC   GPSIZEH1+X1(X3),GPSIZEPP+X1  MOVE REGION SIZE         I272 04353719
         B     SD062040                                              I272 04354719
SD062040 EQU   *                                                     LS17 04360017
         LA    R14,TCORE                LOAD SUBPOOL NO              LS17 04360317
         SLL   R14,24                                                LS17 04360617
         LA    R0,GPMINPAR+4-GETPTWT   LOAD LENGTH OF GETPART WK     LS17 04360917
         OR    R0,R14                   LOAD SUBPOOL + LENGTH        LS17 04361217
         CLI   GPSUBP,246               DO WE REPLACE THE PARTITIO   LS17 04361517
         BE    SD162035                 YES                          LS17 04361817
         L     R1,LCTPARM3              ADDRESS OF GETPART WORK IA   LS17 04362117
         FREEMAIN  R,LV=(0),A=(1)       FREE ITS CORE                LS17 04362417
         XC    LCTPARM3(X4),LCTPARM3  ZERO GWT POINTER               I272 04362519
         B     SD062030                                              LS17 04362717
SD162035 ST    R0,LCTPARM4              SET UP FOR FREEMAIN IN IEF   CR17 04363017
SD062030 EQU   *                                                     CR17 04364517
         DROP  R3                                                    I272 04364619
         USING IHADCB,R3                                             I272 04364719
***********************************************************************  CR17 04364817
*                                                                    CR17 04365117
* GET CORE FOR THE USER PARAM LIST,BUILD PARAM LIST.SET UP THE PRO   CR17 04365417
* INTERFACE AND SAVE THE ADDR IN REGISTER 4.                         CR17 04365717
*                                                                    CR17 04366017
***********************************************************************  CR17 04366317
         LH    R3,SCTSEXEC              GET CORE FOR THE NO.OF USE   CR17 04366617
         LA    R0,8(0,R3)             PLUS 8 FOR GETMAIN            18428 04366917
         LA    R14,TCORE                                             CR17 04367217
         SLL   R14,24                                                CR17 04367517
         OR    R0,R14                                                CR17 04367817
         GETMAIN    R,LV=(0)            GET USER PARAMS CORE.        CR17 04368117
         LR    R4,R1                    SAVE ADDR IN REG 4.          CR17 04368417
         ST    R3,4(0,R1)             LENGTH TO LIST                18428 04368717
         LA    R0,4(R1)                 ADDR OF LENGTH FIELD IN LI   CR17 04369017
         ST    R0,0(R1)                                              CR17 04369317
         OI    0(R1),128                SET HIGH ORDER BIT TO 1.     CR17 04369617
         BCTR  R3,0                                                  CR17 04369917
         LTR   R3,R3                                                 CR17 04370217
         BM    SD06220                                               CR17 04370517
         LA    R0,176                                                CR17 04370817
         GETMAIN R,LV=(0)               GEYMAIN FOR READ BUFFER      CR17 04371117
         LR    R5,R1                    SAVE FOR FREEMAIN            CR17 04371417
         LA    R9,QMGR1                 Q MNGR PARAMETER AREA        CR17 04371717
         LA    R13,REGSAVE              REGISTER SAVE AREA           CR17 04372017
         LA    R1,REGSAVE+72          REMOTE PARAMETER AREA          CR17 04372317
         ST    R1,QMPCL               STORE ADGR OF REMOTE PARAM     CR17 04372617
         MVI   QMPOP,4                  READ INDICATOR               CR17 04372917
         MVI   QMPNC,X'01'              READ ONE RECORD              CR17 04373217
         ST    R5,0(0,R1)             STORE BUFFER ADDRESS           CR17 04373517
         MVC   4(4,R1),SCTXBTTR       MOVE TTR                       CR17 04373817
         LR    R1,R9                    ADDRESS OF Q MGR PARAMETER   CR17 04374117
         L     R15,IEFQMGRV             ADDRESS OF Q MNGR            CR17 04374417
         BALR  R14,R15                  READ THE RECORD.             CR17 04374717
         EX    R3,IEFMOVE1                                           CR17 04375017
         LR    R1,R5                  RESTORE POINTER                CR17 04375317
         LA    R0,176                                         CR17 04375617
         FREEMAIN R,LV=(0),A=(1)                              CR17 04375917
SD06220  EQU   *                                              CR17 04376217
         L     R3,QMCAP                PTR TO TRACK STACK INFO 11404 04380914
         L     R3,0(R3)                PTR TO STACK           11404 04381814
         LA    R3,0(R3)                ZERO HI ORDER BYTE    U11404 04382714
         LTR   R3,R3                   TEST IF STACK EXISTS   11404 04383614
         BE    SD06225                 NO - BRANCH            11404 04384514
*                                                                   04385414
         LR    R13,R3                  PTR TO SAVE AREA IN STACK 11404 04386314
         XC    QMPOP(1),QMPOP      ZERO OP CODE FOR PURGE RTN 11404 04387214
         LR    R1,R9                   PTR TO QMGR PARM AREA  11404 04388114
         L     R15,SD06250             ADDR OF STACK PURGE PGM 11404 04389014
         BALR  R14,R15                 GO TO PURGE+FREE STACK 11404 04389914
*                                                                   04390814
         LR    R3,R15                  SAVE RETURN CODE       11404 04391714
         LR    R1,R13                  PTR TO RETURNED SAVE AREA 11404 04392614
         FREEMAIN R,LV=72,A=(1)        FREE AREA              11404 04393514
         LA    R13,REGSAVE             RESTORE SD062 SAVE AREA 11404 04394414
         LTR   R3,R3                   TEST RETURN CODE       11404 04395314
         BE    SD06225                 NORMAL RETURN          11404 04396214
         B     SD062010+12            ERROR RETURN           PTM663 04397116
*                                                                   04398014
SD06225  EQU   *                                              11404 04398914
*                                                                 * 04400000
******************************************************************* 04420000
* CORE IS GOTTEN FOR A PARAMETER LIST WHICH IS PASSED BETWEEN  I270 04440019
* INITIATOR MODULES AND FOR THE ATTACH PARAMETER LIST WHICH IS I270 04460019
* INITIALIZED IN IEFSD103 AND USED BY IEFSD263 IN THE LINK     I270 04480019
* PACK AREA TO ATTACH THE SUBTASK.                             I270 04500019
******************************************************************* 04560000
         LA    R0,LISTSIZE       SIZE OF PARMETER LISTS        I270 04600019
         LA    R13,LISTSIZE-1    SIZE OF PARM AREA LESS ONE    I270 04640019
         LA    R1,TCORE          SUBPOOL 253                   I270 04720019
         SLL   R1,X24            SP IN LIGH ORDER BYTE         I270 04760019
         OR    R0,R1             SP AND LENGTH IN REG 0        I270 04800019
         GETMAIN R,LV=(0)                                      I270 04880019
         EX    R13,CLEARCOR      ZERO GOTTON CORE              I270 04920019
         LR    R11,R1            EST ADDRESSABILITY OF PARM ARE I270 04960019
         ST    R4,IEFUSADD       ADDRESS OF USER PARMS         I272 04980019
         LA    R0,IEFPSIZE(R11)  ADDRESS OF ATTACH PARM LIST   I270 05000019
         ST    R0,IEFREMLS       ADDR OF ATTACH LIST IN PARM LT I270 05040019
         LA    R13,X1(R13)       LENGTH OF GOTTEN CORE         I270 05060019
         STC   R13,IEFREMLS      STORE LENGTH OF GOTTEN CORE   I270 05080019
         L     R3,12(0,R2)              TIOTLIST POINTER            05120000
         ST    R3,IEFTIOTA              PLACE IN PARAMETER LIST     05140000
         L     R5,LCTQDRTY              GET CSCB BASE REGISTER      05160000
         L     R4,LCTTCBAD       ADDRESS OF INIT'S TCB         I272 05180019
         ST    R4,IEFTCBAD             PLACE IN PARAMETER LIST      05200000
         XC    0(4,R3),TIOTPONT(R4)   THIS SERIES OF EXCLUSIVE OR'S 05220000
         XC    TIOTPONT(4,R4),0(R3)   RESULTS IN PUTTING THE JOB STEP 05240000
         XC    0(4,R3),TIOTPONT(R4)   TIOT PTR IN THE INITIATOR'S TCB 05260000
*                                     AND THE INITIATOR TIOT PTR IN 05280000
*                                     THE TIOT LIST.  THIS IS DONE TO 05300000
*                                     SAVE THE PTR TO THE INITIATOR 05320000
*                                     TIOT WHILE THE PTR TO THE JOB 05340000
*                                     STEP TIOT IS PLACED IN THE    05360000
*                                       INITIATOR'S TCB TO BE REFER-         05380000
*                                       ENCED BY THE OPEN ROUTINE            05400000
         ST    R8,IEFLCTAD               PLACE LCT POINTER INTO PAR LST      05420000
*********************************************************************** 05440000
*                                                                     * 05460000
* THE FOLLOWING SECTION OF CODE GETS CORE FOR AND OPENS THE JOBLIB    * 05480000
*              STEPLIB, AND/OR FETCH DCB'S AS NECESSARY           *UC42 05500017
*                                                                     * 05520000
*********************************************************************** 05540000
         TM    SCTSSTAT,X'04'       IS PROTECT KEY TO BE ZERO         CR17 05545017
         BO    BYPASS             YES,IGNORE JOBLIB AND FETCH       A16531 05550019
*                                     DCBS                            CR17 05555017
         L     R10,TIOTPONT(R4)         GET TIOT ADDRESS                     05560000
*********************************************************************** 05561019
*                         SET UP STAE ENVIRONMENT                     * 05562019
*********************************************************************** 05563019
         LA    R0,STAELNTH              GET LNTH OF AREA            A16531 05564018
         LA    R14,TCORE                SUBPOOL NUMBER A            A16531 05565018
         SLL   R14,24                   MOVE TO HI ORDER BYTE       A16531 05566018
         OR    R0,R14                   LNTH REG                    A16531 05567018
         GETMAIN  R,LV=(0)                                                 05568018
         LR    R9,R1                    SAVE PARM ADDRS             A16531 05569018
         LA    R0,AGAIN                 @ STAE EXIT ROUTINE         A29871 05571019
         ST    R0,0(R9)                 SAVE EXIT RTN @             A29871 05573019
         ST    R9,4(R9)                 SAVE PARM AREA @            A29871 05575019
         STM   R4,R11,16(R9)            SAVE REGISTER'S             A29871 05577019
         SR    R0,R0                     ZERO A REGISTER                   05580000
*  THIS IS THE MACRO WHICH SETS UP THE ENVIRONMENT FOR HANDLING   A16531 05580118
* ABENDS AFTER OPEN STMTS. AN ADDRESS OF THE EXIT ROUTINE IS      A16531 05580218
* GIVEN HERE TO ROUTE CONTROL THROUGH THE RETRY ROUTINE. A PARM   A16531 05580318
* AREA ADDRESS IS GIVRN WHICH HAS SAVED REGS FOR THE RETRY        A16531 05580418
         STAE   MF=(E,(R9))             ISSUE STAE MACRO            A29871 05580719
         TM    SCTSTAT2,SCTSTPLB        IS STEPLIB PRESENT           17052 05581017
         BZ    IEFJOBLB                 NO, CHECK JOBLIB             17052 05582017
IEFSD032 DS    0H                                                    17052 05583017
         LA    R0,IEFDCBN-IEFDCBS  DCB LENGTH                        17052 05584017
         LR    R4,R0               SUBTRACT ONE                      17052 05585017
         BCTR  R4,0                TO EXECUTE MOVE INSTRUCTION       17052 05586017
         LA    R14,TCORE           SUBPOOL NUMBER                    17052 05587017
         SLL   R14,24              TO HIGH-ORDER BYTE                17052 05588017
         OR    R0,R14              OF LENGTH FIELD                   17052 05589017
*                                                                          05590017
         GETMAIN R,LV=(0)          GET DCB CORE                      17052 05591017
*                                                                          05592017
         LR    R3,R1               ADDR TO DCB BASE REGISTER         17052 05593017
         EX    R4,MOVEDCB          MOVE REMOTE DCB TO GOTTEN CORE 17052 05594017
         MVC   DCBDDNAM,STEPLIB         PUT STEPLIB DDNAME INTO DCB17052 05595017
         B     IEFJSOPE                 OPEN  STEPLIB  DCB           17052 05596017
IEFJOBLB TM    JCTJSTAT,JOBLIB          WAS JOBLIB SPECIFIED IN      17052 05606017
*                                        JOB                               05620000
         BZ    IEFSD030                  NO, CHECK FOR FETCH               05640000
         LA    R0,IEFDCBN-IEFDCBS        NO.  LENGTH OF DCB.          CR17 05680017
         LR    R4,R0                     LENGTH OF DCB - 1                 05720000
         BCTR  R4,0                      TO EXECUTE                        05740000
         LA    R14,TCORE                 SUBPOOL NUMBER                    05760000
         SLL   R14,24                    TO HIGH ORDER BYTE                05780000
         OR    R0,R14                    OF LENGTH FIELD                   05800000
         GETMAIN R,LV=(0)               GETMAIN FOR DCB                 05820000
         LR    R3,R1                    ADDRESS OF REMOTE DCB           05840000
         EX    R4,MOVEDCB               MOVE DCB TO GOTTEN CORE         05860000
         MVC   DCBDDNAM(8),TIOEDDNM     PUT THE DDNAME IN THE DCB       05880000
*  THE EXIT LIST CODE USED FOR 213 ABENDS HAS BEEN REMOVED FROM  A16531 05890018
* THIS MODULE.  IT IS NO LONGER NEEDED NOW THAT A STAE ENVIRON-  A16531 05900018
* MENT HAS BEEN ESTABLISHED THE OPEN STMT IS CHANGED SUCH THAT   A16531 05910018
* IT NO LONGER ADDRESSES THE EXIT LIST                           A16531 05920018
IEFJSOPE LR    R1,R2                   ALLOCATE PARMLIST         A16531 05930018
         STM   R2,R3,8(R9)                                       A29871 05960019
         MVI   0(R1),X'80'              INDICATE END OF LIST            06000000
         OPEN  ((3),INPUT),MF=(E,(1))   OPEN THE DCB                    06020000
         TM    DCBOFLGS,X'10'          OPEN SUCESSFUL            A16531 06040018
         BZ    IEFSD33A                BRANCH NO                 A16531 06060018
         ST    R3,LCTJOBLB              SAVE JOBLIB DCB POINTER         06080000
         TM    JCTJSTAT,JOBLIB         WAS JOBLIB SPECIFIED     17052   06086017
         BZ    IEFSD030                                           17052 06092017
IEFSD023 SR    R0,R0                    ZERO A REGISTER                 06100000
IEFSD025 IC    R0,TIOELNGH                                              06120000
         LTR   R0,R0                    ANY MORE ENTRIES ?              06140000
         BZ    IEFSD035                 NO, DON'T OPEN FETCH            06160000
         AR    R10,R0                   CHECK FOR                       06180000
         CLI   TIOEDDNM,X'40'           CONCATENATION                   06200000
         BE    IEFSD025                 IF CONCATENATED, GET NEXT ENTRY 06220000
IEFSD030 TM    SCTSTYPE,SCTGOSTP        WAS FETCH SPECIFIED ?           06240000
         BZ    IEFSD035                NO, DON'T  OPEN FETCH      17052 06250017
         LA    R0,IEFDCBN-IEFDCBS       DCB LENGTH                      06266017
         LR    R4,R0                    DECREMENT BY ONE                06272017
         BCTR  R4,0                     FOR EXECUTING MOVE              06278017
         LA    R14,TCORE                SUBPOOL NUMBER                  06284017
         SLL   R14,24                   TO HIGH ORDER BYTE              06290017
         OR    R0,R14                   OF LENGTH FIELD                 06296017
         GETMAIN R,LV=(0)               GET DCB CORE                    06302017
         LR    R3,R1                    PLACE ADDRESS IN R3             06308017
         STM   R2,R3,8(R9)                                       A29871 06311019
         EX    R4,MOVEDCB               MOVE DCB TO GOTTEN CORE         06314017
         MVC   DCBDDNAM,TIOEDDNM        PLACE DDNAME IN DCB             06320017
         LR    R1,R2                    ADDRESS OF REMOTE LIST          06350017
         MVI   0(R1),X'80'              INDICATE END OF LIST          . 06356017
         OPEN  ((3),INPUT),MF=(E,(1))   OPEN THE DCB                    06362017
         TM    DCBOFLGS,X'10'          OPEN SUCESSFUL            A16531 06368018
         BZ    IEFSD033                BRANCH NO                 A16531 06374018
         ST    R3,IEFDCBAD         DCB ADDRESS IN PARM LIST        I270 06378019
         B     IEFSD035                                           17052 06383017
IEFSD33A DS    0H                                                       06403017
         TM    SCTSTAT2,SCTSTPLB       STEPLIB PRESENT?           17052 06423017
         BZ    IEFSD033                NO, JOBLIB                 17052 06443017
IEFSD33H DS    0H                                                       06463017
         CLC   TIOEDDNM(8),STEPLIB     YES, DOES R10 POINT TO     17052 06483017
*                                       STEPLIB ENTRY             17052 06503017
         BE    IEFSD033                YES, GET OUT               17052 06523017
         IC    R0,TIOELNGH             NO, BUMP TO                17052 06543017
         AR    R10,R0                  NEXT ENTRY                 17052 06563017
         B     IEFSD33H                CONTINUE SEARCH            17052 06583017
A7Z      EQU   *                                                        06587018
         BALR  R15,0                                             A16531 06591018
         USING *,R15                                             A16531 06595018
         L     R12,STAEREG                                             A16531 06599018
         DROP  R15                                                     A16531 06603018
         USING IEFSD062+2,R12                                          A16531 06607018
         CH    R0,TWELVE                WORKAREA                       A16531 06611018
         BE    NOGO                     BRANCH NO                      A16531 06615018
         L     R9,0(R1)                 GET STAEPARM ADDRS             A16531 06619018
         FREEMAIN  R,LV=104,A=(1)       FREE WKAREA                    A16531 06623018
         B     PROCESS                  BRANCH TO CONTINUE             A16531 06627018
NOGO     LR    R9,R2                    GET STAE PARM ADDRS            A16531 06631018
PROCESS  LM    R2,R11,8(R9)             RESTORE REGISTER'S             A29871 06641019
IEFSD033 OI    LCTINTSW,LCTSDOXX  OVERRIDE USER PROGRAM NAME IN          I270 06663019
*                                 IN ATTACH PARM LIST.                   I270 06671019
         LA    R0,IEFDCBN-IEFDCBS         LENGTH OF DCB                       06680000
         LA    R4,TCORE                   SUBPOOL NUMBER                      06700000
         SLL   R4,24                      TO HIGH ORDER BYTE OF               06720000
         OR    R0,R4                      LENGTH REGISTER                     06740000
         LR    R1,R3                      ADDRESS OF REMOTE DCB               06760000
         FREEMAIN R,LV=(0),A=(1)          FREE DCB AND EXIT LIST              06780000
         L     R1,IEFUSADD                ADDRESS OF USER PARAMETERS          06800000
         L     R4,4(R1)                 LENGTH OF USER PARAMS           18428 06820017
         LA    R0,8(R4)                                                 18428 06840017
         LA    R4,TCORE                   SUBPOOL NUMBER                      06860000
         SLL   R4,24                      TO HIGH ORDER BYTE OF               06880000
         OR    R0,R4                      LENGTH REGISTER                     06900000
         FREEMAIN R,LV=(0),A=(1)          FREE USER PARAM LIST                06920000
         LA    R4,8                       GET LENGTH OF USER PARAMS           06940000
         LA    R0,8(R4)                 PLUS 8 FOR GETMAIN              18428 06960017
         LA    R1,TCORE                 SUBPOOL NUMBER                  M2434 06980018
         SLL   R1,24                    TO HIGH ORDER BYTE OF           M2434 07000018
         OR    R0,R1                    LENGTH REGISTER                 M2434 07020018
         GETMAIN R,LV=(0)                 GETMAIN FOR USERS PARAMS            07040000
         ST    R1,IEFUSADD                SAVE NEW ADDRESS OF USER PARAMS 07060000
         ST    R4,4(0,R1)               LENGTH TO LIST                  M2434 07080018
         LA    R0,6(0,R1)      PLACE ADDRESS OF LENGTH FIELD            23021 07100018
         ST    R0,0(0,R1)                 IN THE GOTTEN LIST AND              07120000
         OI    0(R1),128                  SET HI-ORDER BIT TO 1               07140000
         MVC   8(8,R1),TIOEDDNM    MOVE IN DDNAME                       18428 07180017
IEFSD035 EQU   *                                                              07220000
*    FREE THE STAE PARMAREA GOTTEN FOR THE RETRY                       A27679 07222019
         LA    R0,STAELNTH              GET PARM LENGTH                A27679 07224019
         LA    R14,TCORE                SUBPOOL NUMBER                 A27679 07226019
         SLL   R14,24                   MOVE TO HI ORDER BYTE          A27679 07228019
         OR    R0,R14                   LENGTH REGISTER                A27679 07230019
         FREEMAIN  R,LV=(0),A=(R9)      FREE THE AREA                  A27679 07232019
BYPASS   EQU   *                                                       A16531 07236019
         L     R4,IEFTCBAD              GET ADDRESS OF INITIATOR'S TCB        07240000
*                                       IN R4                                 07260000
         XC    LCTPARM1(X4),LCTPARM1 ZERO FIELD                          I272 07262019
         TM    SCTSSTAT,X'04'             IS PROTECTION KEY TO BE CH CR17 07264017
         BZ    IEFSD040                   NO.                        CR17 07266017
         MVC   LCTPARM1(1),TCBPKF(R4)     YES.SAVE OLD PROTECTION KE CR17 07268017
TCBPKF   EQU   28                                                    CR17 07270017
         XC    TCBPKF(1,R4),TCBPKF(R4)  ZERO OUT PROTECTION KEY IN CR17 07272017
IEFSD040 EQU   *                                                     CR17 07274017
         L     R3,IEFTIOTA              GET ADDRESS OF TIOT LIST IN R3        07280000
*                                                                             07300000
         XC    0(4,R3),TIOTPONT(R4)     THIS SERIES OF EXCLUSIVE OR'S         07320000
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          XC      TIOTPONT(4,R4),0(R3)      PUTS BACK THE JOB STEP AND              07340000
          XC      0(4,R3),TIOTPONT(R4)      INITIATOR TIOT PTRS INTO THE            07360000
*                                           TIOT LIST AND THE INITIATOR'S           07380000
*                                           TCB RESPECTIVELY. (SEE ABOVE            07400000
*                                           WHERE THEY WERE SWAPPED TO              07420000
*                                           ALLOW OPEN TO REFERENCE THE JOB         07440000
*                                           STEP TIOT FROM INITIATOR'S TCB)         07460000
* RESTORE THE JSCB ADDRESSES WHICH WERE SWITCHED BEFORE ALLOCATION I272 07540019
          L       R0,TCBJSCB(R4)        JOB STEP JSCB                          I272 07620019
          L       R3,LCTJSCB            INIT'S JSCB                            I272 07700019
          ST      R0,LCTJSCB            JOB STEP JSCB IN LCT                   I272 07780019
          ST      R3,TCBJSCB(R4)                                                    07860019
          LA      R1,IEFFCBLT                ADDRESS OF ECB LIST                    07960000
          ST      R1,IEFFCBLA                STORE IN PARAMETER LIST                07980000
          LA      R3,IEFAECB                 ADDRESS OF ATTACH ECB                  08000000
          ST      R3,0(0,R1)                 PLACE IN ECBLIST                       08020000
          LA      R4,CHCECB                                                    I272 08040019
          ST      R4,4(0,R1)                 PLACE IN ECBLIST                       08060000
          OI      4(R1),128                  TURN ON HIGH ORDRR BIT OF LIST         08080000
          LR      R1,R2                      ADDRESS OF INPUT LIST                  08180000
          FREEMAIN  R,LV=24,A=(1),SP=TCORE                                          08200000
*  THIS IS THE MACRO WHICH CANCELS THE STAE ENVIRONMENT                      A16531 08206018
          STAE    0                         CANCEL STAE                      A16531 08212018
          LR      R1,R11                     POINT TO PARAMETER LIST                08220000
          L       R15,IEF63VCN               ADDRESS OF ATTACH MODULE               08240000
          BR      R15                        GO TO ATTACH MODULE                    08260000
*    THIS IS THE STAE EXIT ROUTINE. HERE IS WHERE WE SPECIFY VIA A16531 08261018
* A RETURN CODE IN R15 THAT A RETRY8 IS TO BE ATTEMPTED. WE         A16531 08262018
* RETURN TO THE STAE INTERFACE WITH THE RETRY ADDRS IN R0           A16531 08263018
AGAIN     EQU     *                                                  A16531 08264018
          BALR    R15,0                                              A16531 08265018
          USING   *,R15                                              A16531 08266018
          L       R12,STAEREG               RE-ESTABLISH BASEREG     A16531 08267018
          DROP    R15                                                A16531 08268018
          USING   IEFSD062+2,R12                                     A16531 08269018
          LA      R15,4                                              A16531 08270018
          LA      R0,A7Z                                             A16531 08271018
          BR      R14                                                       08272018
TWELVE    DC      H'12'                                                     08273018
STAEREG   DC      A(IEFSD062+2)                                      A16531 08274018
STAELNTH    EQU   60                                                 A29871 08277019
CFO       DC      F'0'                      WORD OF ZEROES FOR COMPARES     08280000
MAINLGTH  DC      A(DATACELL-UCBOB)                                    I272 08282019
SUBLGTH   DC      A(L'DATACELL)                                        I272 08284019
IEFRDER   DC      CL8'IEFRDER'                                         I272 08286019
HOURS24   DC      F'8640000'            1440 MIN IM HUNDREDTH OF SEC.       08290018
STEPLIB   DC      CL8'STEPLIB '          DDNAME FOR DCB                DC42 08350017
IEFQMGRV  DC      V(IEFQMRAW)                                               08360000
SYSCMD    ENQ     (IEFSOCBS,IEFQ70CB,E,2,SYSTEM),MF=L                  I272 08363019
IEFQ70CB  DC      C'07'             MINOR FOR SYSTEM TASK              I272 08366019
IEFSOCBS  DC      C'SYSIEFSD'       MAJOR                              I272 08369019
ACSTARTG  DC      C'STARTING'                                          I272 08372019
BLANKFW   DC      C'    '                                                   08375019
IEFMOVE1  MVC     8(0,R4),4(R5)      MOVE USER PARAMS FROM BUFFER     18428 08380017
CLEARCOR  XC      X0(X0,R1),X0(R1)                                     I270 08390019
SETBITS   OI      JCTRSW2,X'00'      PUT C/R BITS IN JCT               CR17 08410017
TIOTPONT  EQU     12                                                        08420000
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IEF63VCN DC     V(IEFSD063)
IEFSD65V DC     V(IEFSD065)                                                08440000
IEFSDSTI DC     V(IEFSD110)              ADDR OF STACK INIT. PGM            08460000
SD514RTE DC     V(IEFSD514)               TIOT WRITE ROUTINE.               08480000
SD06250  DC     V(IEFSD112)                                           CR17 08485017
IEFSD161 DC     V(IEFSD061)          LINKAGE TO IEFSD161             11404 08490014
RESTART  DC     CL8'IEFRSTRT'        STEP NAME FOR RESTARTING STEP     099 08490719
*                                                                      099 08491419
* * * * * * * * * ENQ/DEQ FOR DIRECT SYSOUT CONTROL BLOCKS (DSOCB)     099 08492119
*                                                                      099 08492819
DSOCBNQ  ENQ    (IEFSQCBS,DSOCBNOR,S,05,SYSTEM),MF=L                   099 08493519
*                                                                      099 08494219
* * * ENQ/DEQ Q AND R NAMES                                            099 08494919
*                                                                      099 08495619
*  USING MAJOR NAME IN ENQ 'SYSCMD'                                    099 08496319
DSOCBNOR DC     C'DSOCB'        R - MINOR NAME                         099 08497019
*                                                                      099 08497719
MOVEDCB  MVC    0(0,R3),IEFDCBS              MOVE DCB TO GUTTN CORE    099 08498419
TCORE    EQU    253                                                        08500000
N0       EQU    0                                                          08520000
N1       EQU    1                                                      099 08521019
N2       EQU    2                                                      099 08522019
N3       EQU    3                                                      099 08523019
N4       EQU    4                                                      099 08524019
N7       EQU    7                                                      099 08525019
N8       EQU    8                                                      099 08526019
EIGHT    EQU    8                                                      099 08527019
NC       EQU    12                                                     099 08528019
N72      EQU    72                                                     099 08529019
X104     EQU    104                                                    099 08530019
N255     EQU    255                                                    099 08531019
RSTRTCK  DC     CL8'IEFDSDRP'                                          099 08532019
DSOMSG   DC     C'IEF387I DIRECT SYSOUT='                              099 08533019
PERIOD   EQU    C'.'                                                   099 08534019
COMMA    EQU    C','                                                   099 08535019
JOBLIB   EQU    X'80'                                                  099 08536019
TCBJOBL  EQU    40                                                         08540000
X0       EQU    0                                                          08560000
X1       EQU    1                                                     I272 08560119
X3       EQU    3                                                     I272 08560219
X4       EQU    4                                                     I272 08560319
X7       EQU    7                                                     I272 08560419
X8       EQU    8                    DISPLACEMENT                     I272 08560519
X24      EQU    24                                                    I272 08560619
X96      EQU    96                                                    I272 08560719
X184     EQU    184                                                   I272 08560819
X255     EQU    255                  USED IN MASK                     I272 08560919
X256     EQU    256                                                   I272 08561019
BLANK    EQU    C' '                                                  I272 08561119
IELRTNCD EQU    2                                                     I272 08561219
NOSIOTS  EQU    X'00'                                                 I272 08561319
ONEREC   EQU    X'01'                                                 I272 08561419
READCODE EQU    X'04'                                                 I272 08561519
MAINUCB  EQU    X'FF'                                                 I272 08561619
POOL246  EQU    246                                                   I272 08561719
RTNCODE4 EQU    X'04'                                                 I272 08561819
IOFLAG   EQU    X'81'                                                 I272 08561919
                                                                      I272 08562019
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SPROGRAM EQU   X'04'             VERB CODE FOR STARTED PROGRAM     I272 08562119
TCBTIO   EQU   12                TIOT DISPLACEMENT IN TCB          I272 08562219
TCBJSCB  EQU   180                                                 I272 08562619
         EJECT                                                          08563017
IEFDCBS  DS    0F                                                       08580000
         DCB DSORG=PO,MACRF=E                                           08600000
         EJECT                                                          08610017
IEFDCBN  EQU   *                                                        08640000
         DCBD  DSORG=(PO,XE)                                            08660000
         EJECT                                                          08670017
IEFCSCB DSECT                                                           08680000
 IEFCHAIN                                                               08700000
         EJECT                                                          08710017
 IEFQMNGR                                                               08720000
QMCAP    EQU   IOPARAMS+24             PTR IN QMPA TO TRK STACK INFO    08740000
         EJECT                                                          08750017
*********************************************************************** 08760000
*********************************************************************** 08780000
*        THE FOLLOWING REPRESENTS A BLOCK OF MAIN STORAGE WHICH      * 08800000
*        EXISTS WHILE THE JOB STEP US RUNNING.  IT IS GOTTEN          * 08820000
*        BY THIS MODULE AND IS FREED BY IEFSD164                      * 08840000
*                                                                     * 08860000
*                                                                     * 08880000
IEFPARAM DSECT                                                          08900000
IEFUSADD DS    F                        ADDRESS OF USER PARAMETERS      08920000
IEFECBLA DS    F                        ADDRESS OF ECB LIST             08940000
IEFREMLS DS    F                        ADDRESS OF SUPERVISOR L LIST    08960000
IEFLCTAD DS    F                        ADDRESS OF LCT                  08980000
IEFTCBAD DS    F                        ADDRESS O INITIATOR'S TCB       09000000
IEFTIOTA DS    F                        ADDRESS OF TIOT                 09020000
IEFDCBAD DS    F                        ADDRESS OF DCB             I270 09030019
IEFECBLT DS    2F                       ECB LIST                        09040000
IEFAECB  DS    F                        ATA                             09060000
IEFPLEND EQU   *                                                   I270 09070019
IEFPSIZE EQU   IEFPLEND-IEFPARAM                                   I270 09080019
         EJECT                                                          09090019
         IEZATTCH                                                  I270 09100019
LISTSIZE EQU   IEFPSIZE+ATLSTSIZ                                   I270 09105019
         EJECT                                                          09110017
*********************************************************************** 09120000
*                                                                     * 09140000
*        THE FOLLOWING REPRESENTS A BLOCK OF MAIN STORAGE WHICH IS   * 09160000
*        ALLOCATED FOR THE LIFE OF                                    * 09180000
*        OF THIS INITIATOR.  IT CONTAINS:                             * 09200000
*                                                                     * 09220000
*              (1)  THE LCT (LINKAGE CONTROL TABLE)                   * 09240000
*              (2)  A 2 LEVEL REGISTER SAVE AREA FOLLOWED BY          * 09260000
*                   THE QUEUE MANAGER PARAMETER AREA                  * 09280000
*              (3)  AN ALTERNATE QUEUE MANAGER PARAMETER AREA         * 09300000
*                                                                     * 09320000
*********************************************************************** 09340000
IEFLOT   DSECT                                                          09360000
  IEFALLCT                                                              09380000
         EJECT                                                          09390017
LCTBATMN DS    F  *****TO BE ADDED TO LCT                               09400000
LCTSQQMP DS    F  *****TO BE ADDED TO LCT(VMS ONLY)  POINTER TO         09420000
*                      SYSOUT QUEUE MANAGER PARAMETER AREA              09440000
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LCTRTRN  DS    F  *****TO BE ADDED TO LCT(VMS ONLY) INITIATOR'S          09460000
*                        RETURN POINT                                    09480000
LCTINTSW DS    0C                   INITIATOR INTERNAL SWITCHES    I272 09482019
LCTIHIER EQU   128                 RUN IN HIERARCHY ONE            I272 09484019
LCTSDOXX EQU   32                  ATTACH IEFSD0XX                 I272 09486019
LCTMINRG EQU   16                  JOB FLUSH - USE MINPAR          I272 09488019
LCTSTART EQU   8                   TASKNAME NOT ON COMMAND         I272 09490019
LCTSTOP  EQU   4                   INITIATOR INTERNAL STOP         I272 09492019
LCTCSCB  DS    F  *****TO BE ADDED TO LCT(VMS ONLY) INITIATOR CSCB       09500000
*                        ADDRESS                                         09520000
LCTTMWRK DS    4F *****TO BE ADDED TO LCT(VMS ONLY) TIMER WORK AREA      09540000
LCTJOBLB DS    F  *****TO BE ADDED TO LCT(VMS ONLY) JOBLIB DCB PTR       09560000
LCTATLST DS    F  *****TO BE ADDED TO LCT(VMS ONLY)  POINTER TO          09580000
*                        ALLOCATE/TERMINATE PARAMETER LISTS              09600000
REGSAVE  DS    36F                      REGISTER AVE AREA                09620000
QMGR1    DS    9F                       QUEUE MANAGER PARAMETER AREA     09640000
QMGR2    DS    9F                       ALTERNATE QUEUE MANAGER AREA     09660000
TRSTKINF DS    2F                  NEEDED FOR TRACK STACKING AND QUEUE   09680000
*                                  BREAK INFORMATION.  1ST BYTE TO CON-  09700000
*                                  TAIN  NUMBER OF BUFFERS, NEXT 3 BYTES 09720000
*                                  FOR STACK ADDR, NEXT 4 BYTES FOR      09740000
*                                  QUEUE BREAK INFORMATION               09760000
ECBLIST  DS    1F                       PTR                        0C42 09764017
LCTIDENT DS    2F                       IDENTIFIER                 0C42 09768017
LCTFORCE DS    CL8                  POSSIBLE FORCE VALUES          I241 09770018
LCTLIMIT DS    C                    LIMIT VALUE                    I241 09772018
FRCPRTY  DS    C                    FORCE PRTY HOLDER              I241 09774018
INITPRTY DS    C                    INITIATOR'S PRTY               I241 09776018
*   THESE FIELDS ARE NEEDED FOR L-SHAPE/INIT MERGE             *   I272 09776219
         DS    0F                                                  I272 09776419
LCTOPSW1 DS    0C                   INITIATOR OPTIONS BYTE 1       I272 09776619
LCTPKEYF EQU   128                  DONT GET PROTECT KEY           I272 09776819
LCTDWFF  EQU   64                   DONT PROCESS DEDICATED WORKF   I272 09777019
LCTSTMDF EQU   32                   DONT PROCESS STOP/MODIFY       I272 09777219
LCTMINPF EQU   16                   GET REGION SIZE SPECIFIED      I272 09777419
LCTCANF  EQU   8                    ALLOW CANCEL ONLY AT ALLOC     I272 09777619
LCTONEJF EQU   4                    PROCESS ONLY ONE JOB           I272 09777819
LCTICMDF EQU   2                    DONT PROCESS INITIATOR CMDS    I272 09778019
LCTEXIT  DS    F                    ADDRESS INITIATOR EXIT LIST    I272 09778219
LCTOPSW2 DS    0C                   INITIATOR OPTIONS BYTE 2       I272 09778419
LCTTIMEF EQU   128                  DONT TIME THIS JOB             I272 09778619
LCTCRF   EQU   64                   DONT ALLOW CHECKPT/RESTART     I272 09778819
LCTDSOF  EQU   32                   DONT PROCESS DSO               I272 09779019
LCTINTH0 EQU   16                   INIT IN HIERARCHY ZERO         I272 09779219
LCTINTH1 EQU   8                    INIT IN HIERARCHY ONE          I272 09779419
LCTCOM   DS    F                    COMMUNICATIONS PARM AREA PTR   I272 09779619
LCTJSCB  DS    F                  ADDRESS OF JSCB                  I272 09779819
IEFEND   EQU   *                        END OF LIFE-OF-TASK BLOCK        09780000
         EJECT                                                           09790017
IEFJCT   DSECT                                                           09800000
 IEFAJCTB                                                                09820000
SMBHDR   EQU   SMBMSGLN                                            099  09820519
HEX00    EQU   X'00'                HEX EQUATE                           09821018
DEC8     EQU   8                    NUMERIC EQUATE                       09822018
DEC4     EQU   4                    NUMERIC EQUATE                       09823018
DEC0     EQU   0                    NUMERIC EQUATE                       09824018
HEX80    EQU   X'80'                HEX EQUATE                           09825018
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         EJECT                                                          09830017
IEFSCT   DSECT                                                          09840000
 IEFASCTB                                                               09860000
         EJECT                                                          09870017
IEFTIOT  DSECT                                                          09880000
 IEFTIOT1                                                               09900000
UCB      DSECT                                                     I272 09903019
         IEFUCBOB                                                  I272 09906019
         EJECT                                                          09910017
SIOT     DSECT                                                     I272 09915019
         IEFASIOT                                                  I272 09920019
         EJECT                                                          09925019
         IEFZJSCB                                                  I272 09930019
WTPCBPTR EQU   JSCBWTP-IEFZJSCB                                         09935019
         EJECT                                                          09941017
GETPTWT  DSECT                                                          09942017
GPSIZEA  DS    1F            CONTAIN THE ADDRESS OF THE REGION SIZE LI LS17 09943017
GPADDLT  DS    1F            CONTAIN THE ADDR OF ADDR LIST FOR THE HIE LS17 09944017
GPCODE   DS    X'0'          CONTAIN 80 TO INDICATE UNCONDITIONAL REGU LS17 09945017
GPSUBP   DS    X'0'          CONTAIN SUBPOOL 247 OR 246                LS17 09946017
         DS    H'0'                                                LS17 09947017
GPHIARC0 DS    0F            CONTAINS  00                          LS17 09948017
GPADDH0  DS    1F            CONTAINS ADDRESS(SPECIFIC) ,ZERO(NON-SPEC LS17 09949017
GPHIARC1 DS    0F            CONTAINS  01                          LS17 09950017
GPADDH1  DS    1F            CONTAINS ADDRESS(SPECIFIC) ,ZERO(NON-SPEC LS17 09951017
GPSIZEH0 DS    1F            SIZE OF H0                            LS17 09952017
GPSIZEH1 DS    1F            SIZE OF H1                            LS17 09953017
GPSIZEPP DS    1F                        SIZE OF REGION FOR P/P    I272 09953319
GPSIZET  DS    1F                        SIZE OF REGION FOR TERMINATE   I272 09953619
GPADDHOR DS    1F            ORGINAL ADDRESS                       CR17 09954017
GPMINPAR DS    1F            247 + MINIMUM REGION SIZE             CR17 09955017
IEFDSOCB DSECT                                                          09956019
      IEFDSOCB                                                          09957019
         EJECT                                                          09958019
         IEFBASEA                                                       09959019
         IEFWTPCB                                                  I272 09959519
         END                                                            09960000
                                                                               1
         TITLE 'IEFSD263-MS/1 ATTACH MODULE'                            00020000
IEFSD263 CSECT                                                          00080000
*                                                                M3767 00080119
* 039200-039800                                                 A24887 00080219
*                                                               A29871 00080519
*                                                                M3441 00081019
* 029210-029220                                                  M0432 00082018
*                                                                 M409 00085018
*                                                                M4160 00087019
*                                                                M2695 00088019
*                                                                M2696 00089019
*0054021400-021600                                                1727 00090014
*2286024200,024400                                               18428 00092017
*0642                                                             MTS0 00095016
*019400-020200,020600,027200-027400,035200-035400,036200,036400   I272 00096019
*037600,040000                                                    I272 00097019
*                                                                M4373 00098019
*027600-027800,034800-035000                                     M4005 00099019
*********************************************************************** 00100000
*                                                                     * 00120000
*                        INITIATOR ATTACH MODULE                      * 00140000
*                                                                     * 00160000
*********************************************************************** 00180000
*                                                                     * 00200000
* STATUS - CHANGE LEVEL 000                                           * 00220000
*                                                                     * 00240000
* FUNCTION - THE FUNCTION OF IEFSD263 IS                                00260000
*                                                                       00280000
*             (1) TO ATTACH THE JOB STEP. NOTE THAT THIS INVOLVES       00300000
*                SAVING THE CONTENTS OF THE FIELD IN THE INITIATOR'S    00320000
*                TCB WHICH POINTS TO THE INITIATOR,S TIOT, THEN         00340000
*                REPLACING THAT FIELD WITH THE POINTER TO THE JOB STEP  00360000
*                TIOT, THEN ISSUING THE ATTACH, THEN PUTTING THE        00380000
*                POINTER TO THE INITIATOR'S TIOT BACK IN ITS TCB.       00400000
*                                                                       00420000
*             (2) TO DETERMINE WHETHER OR NOT THE JOB STEP IS TO BE     00440000
*                TIMED. IF SO TO ISSUE THE STIMER MACRO. IF NOT TO      00460000
*                BYPASS IT.                                             00480000
*                                                                       00500000
*             (3) TO ISSUE A WAIT AGAINST THE POSTING OF A NORMAL STEP  00520000
*                TERMINATION ECB OR A STEP CANCEL ECB                   00540000
*                                                                     * 00560000
*             (4) TO INTERFACE WITH ABTERM IF THE JOB STEP IS         I272 00563019
*                CANCELED OF IF THE TIME LIMIT HAS EXPIRED            I272 00566019
*                                                                     I272 00569019
*             (5) TO DETACH THE JOB STEP                              I272 00572019
*                                                                     I272 00575019
* ENTRY POINT:  IEFSD263 FROM IEFSD103                                * 00580000
*                                                                     * 00600000
* INPUT - REGISTER ONE POINTING TO AN INPUT PARAMETER LIST CONTAING - * 00620000
*              (1) USER PARAMS ADDR                                   * 00640000
*              (2) ECB LIST POINTER                                   * 00660000
*              (3) ATTACH PARAMETER LIST ADDR                         * 00680000
*              (4) LCT POINTER                                        * 00700000
*              (5) INITIATOR TCB POINTER                              * 00720000
*              (6) TIOT LIST POINTER                                  * 00740000
*              (7) DCB ADDRESS                                        I270 00750019
*                                                                      * 00760000
* OUTPUT - REGISTER ONE POINTING TO THE INPUT PARM LIST CONTAINING -   * 00780000
*                 (1) USER PARAMS ADDR                                 * 00800000
*                 (2) ECB LIST POINTER                                 * 00820000
*                 (3) ATTACH PARAMETER LIST ADDR                       * 00840000
*                 (4) LCT POINTER                                      * 00860000
*                 (5) ADDRESS OF PARM AREA FOR SYSTEM TASKS.        I272 00880019
*                     ZERO FOR NON SYSTEM TASKS                     I272 00890019
*                 (6) TIOT LIST POINTER                                * 00900000
*                 (7) DCB ADDRESS                                   I270 00910019
* LCTPARM1-LCTPARM4 OR THE 16 BYTE PARAMETER AREA WHEN THE LCT IS*M4160 00911019
* WRITTEN TO THE JOB QUEUE HAS THE FOLLOWING FORMAT ON EXIT       *M4160 00912019
* FROM IEFSD263                                                   *M4160 00913019
*                                                                 *M4160 00914019
*  TCBFLG   *               TCT ADDRESS                           *M4160 00915019
*              T T R   OF LCT                 *   LCTINTSW        *M2696 00916019
*  TCBDSP   *               CSCB ADDRESS                          *M4160 00917019
*                      TCBTCC (TASK COMPLETION CODE)              *M4160 00918019
*                                                                 *M4160 00919019
*                                                                      * 00920000
* EXTERNAL REFERENCES- IEFSMFAT                                     SMF1 00940018
*                                                                      * 00960000
* EXIT    IEFSD104                                                  I272 00980019
*                                                                      * 01000000
* TABLES/WORK AREAS:  INPUT PARAMETER, LIFE-OF-TASK BLOCK              * 01020000
*                                                                      * 01040000
* ATTRIBUTES - REENTRANT                                               * 01060000
*                                                                      * 01080000
************************************************************************ 01100000
R0       EQU   0                                                         01120000
R1       EQU   1                                                         01140000
R2       EQU   2                                                         01160000
R3       EQU   3                                                         01180000
R4       EQU   4                                                         01200000
R5       EQU   5                                                         01220000
R6       EQU   6                                                         01240000
R7       EQU   7                                                         01260000
R8       EQU   8                                                         01280000
R9       EQU   9                                                         01300000
R10      EQU   10                                                        01320000
R11      EQU   11                                                        01340000
R12      EQU   12                                                        01360000
R13      EQU   13                                                        01380000
R14      EQU   14                                                        01400000
R15      EQU   15                                                        01420000
Q0       EQU   0                      ZERO DISPLACEMENT VALUE       MP65 01422018
CVTPTR   EQU   16                     POINTER TO CVT                MP65 01424018
CVTDCB   EQU   X'74'                  SYSTEM FLAGS BYTE IN CVT      MP65 01426018
MP65FLAG EQU   X'04'                  M65MP MULTIPROCESSOR SYSTEM   MP65 01428018
STATUS   EQU   79                     STATUS SVC NUMBER             MP65 01430018
STATFLAG EQU   5                      TCB PARM TO STATUS SVC        MP65 01432018
STMCFLAG EQU   X'02'                  STEP MUST COMPLETE BIT        MP65 01434018
         BALR  R12,0                        SET BASE REGISTER            01440000
         USING *,R12                                                     01460000
         USING  IEFPARAM,R8                                              01480000
         USING  IEFLOT,R4                                                01500000
         USING GETPTWT,R11                                          I272 01506019
         USING ATTCHLST,R3                                                      01512019
************************************************************************        01520000
*                                                                     *         01540000
*  THIS SECTION OF CODE IS FOR PROVIDING A METHOD OF IDENTIFYING      *         01560000
*                  THIS MODULE IN A MEMORY DUMP                       *         01580000
*                                                                     *         01600000
         B     FIRST                                                  *         01620000
         DC    X'CCCC'                                                *         01640000
         DC    C'IEFSD263'                                                      01660000
         DC    X'02231970'                                         M3441 01680019
         DC    X'CCCC'                                                          01700000
FIRST    DS    OH                                                     *         01720000
*                                                                     *         01740000
************************************************************************        01760000
         EJECT                                                                  01780000
         LR    R8,R1                      SAVE REGISTER ONE                     01800000
         L     R9,ALLCORE             PURGE MODULES FROM SUBPOOL 252  M3441 01820019
*                                     WHICH HAVE A USER COUNT OF ZERO       01840019
         GETMAIN EC,LV=(9),A=A                                                  01860000
         LM    R3,R4,IEFREMLS         ADDRESSABILITY FOR ATTACH LIST  M3441 01880019
*                                     AND  THE LCT                    M3441 01900019
         L     R11,LCTPARM3            ADDRESS OF GWT                  I272 01940019
         LA    R11,XO(R11)            ZERO HIGH ORDER BYTE             I272 01960019
         LTR   R11,R11                 DOES GWT EXIST                  I272 01980019
         BE    SD06305                BRANCH GWT DOES NOT EXIST        I272 02020019
*        IEFSD062 ISSUES OPENS FOR JOBLIB,STEPLIB OR FETCH AND       A29871 02023019
*    SETS UP A STAE ENVIRONMENT TO PREVENT A 213 ABEND IN OPEN       A29871 02026019
*    FROM BRINGING DOWN THE INITIATOR. OPEN LEAVES BEHIND SOME       A29871 02029019
*    CORE IN SUBPOOL 252 THAT WOULD NOT MATTER IF A TASK ABENDS      A29871 02032019
*    NORMALLY, BUT SINCE WE ARE INTERCEPTING THE 213 WE MUST         A29871 02035019
*    FREE THIS CORE IF WE ARE GETTING A NEW PARTITION.               A29871 02038019
         L     R14,LCTTCBAD           GET INITIATOR'S TCB.
         L     R14,12(R14)            BUMP TO THE TIOT.
         CLI   O(R14),C'F'            FIXED INITIATOR?
         BE    SD06355                BRANCH TO KEEP CURRENT REGION.
         LA    RO,252                      SUBPOOL ID TO HI-ORD BYTE A29871 02041019
         SLL   RO,24                       LENGTH AND ADDR BOTH ZERO A29871 02044019
         SR    R1,R1                       INDICATES FREE ENTIRE SP  A29871 02047019
         FREEMAIN R,LV=(O),A=(1)           FREE SUBPOOL 252          A29871 02050019
         LR    R1,R11                 PARM LIST REPLACE PART           I272 02060019
         GETMAIN  ,MF=(E,(1))              REPLACE PARTITION           CR17 02100017
         L     RO,GPSIZET             REGION SIZE FOR TERMINATE        I272 02110019
         LTR   RO,RO                  TEST FOR NEW REGION              I272 02120019
         BNE   SD06305                KEEP GWT FOR TERMINATE           I272 02130019
SD06355  LR    R1,R11                 ADDRESS OF GWT TO BE FREED.
         DROP  R11                                                    M4160 02160019
         L     RO,LCTPARM4                 LOAD SUBPOOL + LENGTH       CR17 02180017
         FREEMAIN R,LV=(O),A=(1)           FREE ITS CORE               CR17 02220017
         XC    LCTPARM3+X1(X3),LCTPARM3+X1 ZERO PTR TO GWT             I272 02240019
SD06305  EQU   *                                                       CR17 02260017
         L     R13,LCTCMCBA                PROVIDE SAVE AREA           SMF1 02268018
         LM    RO,RI,IEFTCBAD         TCB ADDRESS IN REG O, PTR TO    M3441 02276019
*                                     TIOT PTR IN REG ONE                   02284019
         L     R15,SMFAT                   *                           SMF1 02292018
         BALR  R14,R15                     GO TO SMF TO BUILD TCTIOT   SMF1 02300018
         LTR   R9,R15                      IF THERE WAS SMF PRESENT    SMF1 02308018
*                                               FOR THIS JOB, R9 NOW   SMF1 02316018
*                                                POINTS TO TCT          SMF1 02324018
         USING SMFTCT,R9                                                     02332018
         BZ    SD63007                       *                               02340018
         ST    R0,TCTWLMT                    ST JOB WAIT LIMIT IN R0    SMF1 02348018
         MVC   TCTSW(1),LCTTMWRK+8           MOVE INDICATOR SET BY      SMF1 02356018
*                                                IEFSD162 OF WHETHER    SMF1 02364018
*                                                TIME LIMIT IS JOB OR   SMF1 02372018
*                                                STEP                   SMF1 02380018
SD63007  EQU   *                             *                               02388018
         L     R7,IEFUSADD               MOVE USER PARAMETER AREA FROM       02400000
         L     R4,4(R7)                    SUBPOOL 253 TO SUBPOOL 0   18428 02420017
         LA    R4,8(R4)                                               18428 02440017
         LR    R0,R4                                                         02460000
         GETMAIN R,LV=(0)                CORE FROM SUBPOOL ZERO              02480000
         LR    R0,R4             RESTORE LENGTH VALUE                   M409 02490018
         BCTR  R4,R0                     SUBTRACT ONE FROM R4                02500000
         EX    R4,IEFUSEP                MOVE USER PARM                      02520000
         LA    R4,6(0,R1)              SET UP USER PARM                      02540017
         ST    R4,0(0,R1)                    AREA                            02560000
         OI    0(R1),128                     SET HIGH ORDER BIT TO ONE       02580000
         ST    R1,IEFUSADD               UPDATE USER PARM ADDR               02600000
       LR R1,R7                        LAAD ADDR OF USER PARM AREA           02620000
         L     R7,SPOOL253               FREE SUBPOOL 253              M3441 02650019
         OR    R0,R7                                                         02680000
         FREEMAIN  R,LV=(0),A=(1)            FREE USER PARM IN 253           02700000
         SR    R9,R9                   CLEAR REG                        I241 02702018
         LH    R0,ATDPMOD              LOAD DPMOD                       I270 02704019
         LTR   R0,R0                   IS DPMOD NEGATIVE                I241 02706018
         BL    SD06310                 YES, BRANCH AND CONTINUE         I241 02708018
         CHAP  (0)                     NO, CHAP INIT UP                 I241 02710018
         LNR   R9,R0                   LOAD NEGATIVE VALUE IN REG TO    I241 02712018
*                                        SAVE ACROSS ATTACH             I241 02714018
SD06310  LM    R1,R6,IEFPARAM          PARMS INTO REGS                  I272 02734019
         L     R7,TCBTIOT(0,R5)              SAVE THE POINTER TO THE         02800000
*                                            INITIATOR'S TIOT                02820000
         MVC   TCBTIOT(4,R5),0(R6)         STORE PTR TO THE JOB STEP TIOT    02840000
*                                            INTO INITIATOR'S TCB FOR ATTACH 02860000
*                                            (R6 POINTS TO TIOT LIST)        02880000
         SR    R11,R11                 CLEAR REGISTER                        02882016
         TM    8(R3),X'80'                  NO, BRANCH                       02884016
         BC    8,AGG1                                                        02886016
         L     R11,8(R3)               SET R11 NEGATIVE                      02888016
         XI    8(R3),X'80'              TURN OFF BIT IN ATTACH LIST (FCB)    02890016
AGG1     EQU   *                                                             02892016
         LR    R15,R3                        ADDRESS OF SUPERVISOR L LIST    02900000
         DROP  R3                                                      M4005 02900119
         L     R3,TCBJBL(R5)           SAVE OUR JOBLIB PTR             M4005 02900219
         MVC   TCBJBL(X4,R5),LCTJOBLB PUT NEW PTR FOR ATTACH           M4005 02900319
***************************************************************              02900519
*                                                             *              02901019
* SINCE THIS MODULE RESIDES IN THE LINK PACK AREA, THE ATTACH *              02901519
* PARAMETER LIST IS GOTTEN IN IEFSD162 AND INITIALIZED IN     *              02902019
* IEFSD103, BOTH OF WHICH RUN IN THE INITIATOR REGION.  THE   *              02902519
* ADDRESS OF THE COMPLETED PARM LIST IS PART OF THE INPUT TO  *              02903019
* THIS MODULE. THE FIELDS INITIALIZED AND OPTIONS SELECTED FOR *             02903519
* THE SUBTASK ARE OUTLINED HERE.                              *              02904019
*                                                             *              02904519
*    KEYWORD SATISFIED         INFORMATION PROVIDED               *       02905019
*                                                                 *       02905519
*        EP                    ENTRY POINT NAME                   *       02906019
*        ROLL                  ROLLOUT CRITERIA                   *       02906519
*        DCB                   JOBLIB DCB ADDRESS                 *       02907019
*        ECB                   ECB WAITED ON BY INITIATOR         *       02907519
*        LPMOD                 LIMIT PRIORITY                     *       02908019
*        DPMOD                 DISPATCHING PRIORITY               *       02908519
*        HIARCHY               HIERARCHY INFORMATION              *       02909019
*                                                                 *       02909519
* IN ADDITION THE PARAMETER LIST HAS BEEN INITIALIZED TO CAUSE    *       02910019
* THE FOLLOWING PROCESSING BY THE ATTACH SERVICE ROUTINE.         *       02910519
*                                                                 *       02911019
*     .  TCB IS INITIALIZED AS A JOB STEP TCB.                    *       02911519
*                                                                 *       02912019
*     .  THE JOB PACK AREA QUEUE POINTER IS PROPAGATED FROM THE   *       02912519
*        INITIATOR'S TCB                                          *       02913019
*                                                                 *       02913519
*     .  A 72 BYTE REGISTER SAVE AREA IS PROVIDED FOR THE         *       02914019
*        INITIAL ROUTINE OF THE JOB STEP                          *       02914519
*                                                                 *       02915019
*     .  THE PROTECT KEY IS PROPAGATED FROM THE INITIATOR'S TCB   *       02915519
*                                                                 *       02916019
*     .  THE TASK IS SET TO RUN IN PROBLEM PROGRAM MODE.          *       02916519
*                                                                 *       02917019
*     .  SUBPOOL ZERO IS SHARED WITH THE PROBLEM PROGRAM.         *       02917519
*                                                                 *       02918019
*     .  THE JSCB ADDRESS IN PLACED IN THE SUBTASK'S TCB          *       02918519
*                                                                 *       02919019
*****************************************************************         02919519
         ATTACH  MF=(E,(1)),SF=(E,(15))                                   02920000
         ST    R3,TCBJBL(R5)       RESTORE JOBLIB POINTER           M4005 02920719
         L     R3,LCTODRTY              ADDRESS OF CSCB             I272  02921019
         USING IEFCSCB,R3           CSCB ADDRESSABLIITY             I272  02922019
         ST    R1,CHSPB            STORE TCB ADDRESS IN CSCB        I272  02922519
         LTR   R11,R11             IS TCB BIT TO BE SET FOR GRAPHICS      02924016
         BZ    AGG2                BRANCH IF NO                           02928016
         OI    20(R1),X'20'         SET TCBGRPH BIT IN TCB                02932017
AGG2     EQU   *                                                          02936016
         LR    R11,R1                    SAVE ATTACHED JOBSTEP TCB ADDR   02940000
         ST    R7,TCBTIOT(O,R5)         RESTORE THE POINTER TO THE        02960000
*                                        INITIATOR'S TIOT                 02980000
         L     R1,CVTPTR            GET CVT ADDRESS                 MP65  02982018
         TM    CVTDCB(R1),MP65FLAG  TEST IF MULTIPROCESSOR          MP65  02984018
         BZ    MPNDBYPS             NO, JOBSTEP NOT RUNNING         MP65  02986018
         L     RO,MPNDFLGS          PARM FOR STATUS SVC             MP65  02988018
         LA    R1,QO(,R11)          PASS JOBSTEP TCB ADDRESS        MP65  02990018
         SVC   STATUS               SET TCB NONDISPATCHABLE         MP65  02992018
MPNDBYPS EQU   *                                                    MP65  02994018
         LA    RO,LCTTMWRK+4             ADDRESS OF TIME INTERVAL         03000000
         LR    R10,RO                    PUT ADDRESS IN R10               03020000
         CLC   HOURS24(4),O(R10)        CHECK FOR INDICATION THAT STEP    03040000
         BH    SETTIME                  IS NOT TO BE TIMED                03060000
         LA    R7,1                     SET SWITCH TO INDICATE TIMER      03080000
*                                       WAS NOT SET                       03100000
         MVC   4(4,R10),TUHRS24         SET TIME REMAINING FIELD OF       03120000
*                                       TIMER WORK AREA TO 1440 MIN       03140000
*                                      SO THAT IF THIS IS A CATALOGED   03160000
*                                      PROCEDURE THE REMAINING STEPS    03180000
*                                      WILL ALSO NOT BE TIMED           03200000
         B     BYPASS                  BRANCH AROUND STIMER MACRO       03220000
SETTIME  SR    R7,R7                   SET SWITCH TO INDICATE TIMER     03240000
*                                      WAS SET                          03260000
         STIMER TASK,EXIT,BINTVL=(0)    SET TIMER                       03280000
BYPASS   EQU   *                                                        03300000
         L     R6,LCTPARM1        ADDRESS OF SYS TASK PARM         I272 03301019
         LA    R6,X0(R6)          CLEAR HIGH ORDER BYTE            I272 03302019
         LTR   R6,R6              TEST FOR SYSTEM TASK             I272 03303019
         BE    NONSYSTK           BRANCH NOT SYSTEM TASK           I272 03304019
         MVC   X0(X16,R6),LCTPARM1 INITIALIZE PARM LIST            I272 03304519
         L     R1,SPOOL253        FREE SUBPOOL 253                M3441 03305519
         LA    R0,IEFEND-IEFLOT   LENGTH OF LCT                    I272 03307019
         OR    R0,R1              SP AND LENGTH IN REG 0           I272 03308019
         FREEMAIN R,LV=(0),A=(4)  FREE LCT                         I272 03309019
         LR    R13,R6             ADDRESS OF PARM AREA             I272 03310019
         B     GOWAIT                                              I272 03311019
NONSYSTK LA    R13,LCTPARM1       ADDRESS OF PARM IN LCT           I272 03312019
GOWAIT   EQU   *                                                   I272 03313019
         LR    R1,R2                    ADDRESS OF ECB LIST             03320000
         L     R2,4(0,R1)               ADDRESS OF CANCEL ECB           03340000
         NI    TCBPKF+5(R11),255-STMCFLAG  SET TCB DISPATCHABLE    MP65 03350018
         WAIT  ECBLIST=(1)                                              03360000
         LTR   R0,R9               DID INIT HAVE TO CHAP UP        I241 03360418
         BZ    SD06320             NO, BRANCH AND CONTINUE         I241 03360818
         CHAP  (0)                 CHAP INIT BACH DOWN             I241 03361218
SD06320  MVC   TCBPOE(X4,R5),TCBPOE(R11) UPDATE POE PT IN INIT TCB I272 03362219
         CLI   X0(R13),PKEZERO    IS PROTECT KEY TO BE ALTERED     I272 03364619
         BZ    SD63020            BRANCH NO                        I272 03367619
         MVC   TCBPKF(X1,R5),X0(R13) RESTORE PROTECT KEY INIT TCB  I272 03370619
SD63020  EQU   *                                                   CR17 03374017
         LTR   R7,R7                   CHECK TO SEE IF TIMER WAS SET    03380000
         BC    2,NOTEST                IF NOT BRANCH AROUND TTIMER      03400000
         TTIMER CANCEL                  TEST TIMER                      03420000
         L     R9,TCBTCT(R5)      GET PTR TO                       I272 03421019
         LA    R9,0(R9)                 TCT                         SMF 03423018
         LTR   R9,R9                   DOES SMF APPLY              SMF1 03424018
         BZ    NOSMF                   NO                               03425018
         LM    R14,R15,TCTSTOF         GET TIME EXTENSIONS IF ANY  SMF1 03426018
         XC    TCTSTOF(8),TCTSTOF      AND CLEAR EXT FLD           SMF1 03427018
         D     R14,CON385              CONVERT TU TO HUND SEC      SMF1 03428018
         A     R15,0(R10)              ADD IN ORIG VALUE           SMF1 03429018
         ST    R15,0(R10)              SAVE ADJ VALUE              SMF1 03430018
NOSMF    EQU   *                                                        03431018
         ST    R0,4(R10)                SAVE TIME REMAINING             03440000
NOTEST   EQU   *                                                        03460000
         TM    0(R2),POSTBIT            WAS CANCEL SPECIFIED ?          03580000
         BZ    SD63010                  NO                              03600000
         CLI   CHSPC+X1,SYSCNCL        CHECK TO SEE IF THE         I272 03604019
         BE    CODE422                  SYSTEM CANCELLED JOB       I272 03606019
         TM    X0(R2),X32          WAS JOB CANCELLED W/OUT DUMP    I272 03608019
         BZ    SD06710                  NO                         I272 03610019
         MVC   CHSPC(X4),CODE1          MOVE IN ABEND CODE         I272 03612019
         B     SD06730             CONTINUE PROCESSING             I272 03614019
SD06710  EQU   *                                                   I272 03616019
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         TM     X0(R2),X16           WAS JOB CANCELLED WITH DUMP      I272 03618019
         BZ     SD06720                    NO                         I272 03620019
         MVC    CHSPC(X4),CODE2            INDICATE DUMP              I272 03622019
         B      SD06730                    CONTINUE                   I272 03624019
SD06720  EQU    *                                                     I272 03626019
         MVC    CHSPC(X4),CODE3            TIMER EXPIRED - DUMP       I272 03628019
         B      SD06730              CONTINUE                         I272 03630019
CODE422  EQU    *                                                     I272 03632019
         MVC    CHSPC(X4),CODE4         MOVE SYSTEM CANCEL CODE       I272 03634019
SD06730  EQU    *                                                     I272 03636019
         OI     TCBFLGS+X1(R11),TCBSTI     INDIC NO STAE OPERATIONS   I272 03638019
         OI     CHSTS,CHABTERM       INDICATE ABTERM FOR SVC 34       I272 03640019
         LA     R1,X0(R3)            ADDRESS OF CSCB                  I272 03642019
         MGCR   (1),CHAIN                  GO TO ABTERM VIA MASTER    I272 03644019
         LA     R1,IEFAECB           ADDRESS OF ATTACH ECB            I272 03646019
         WAIT ECB=(1)                      WAIT ON ATTACH ECB         I272 03648019
SD63010  SR     R0,R0                CLEAR REGISTERS TO INDICATE           03653019
         SR     R1,R1                FREE ALL OF SUBPOOL ZERO              03658019
         FREEMAIN   R,LV=(0),A=(1)   SUBPOOL ZERO                          03663019
         L      R10,X12(R13)        SAVE SP AND LENGTH OF GWT         I272 03668019
         L      R7,X8(R13)          ADDRESS OF GWT                   M4160 03673019
         LA     R7,X0(R7)           ZERO HIGH ORDER BYTE             M4160 03678019
         ST     R3,X8(R13)          STORE CSCB ADDRESS               M4160 03683019
         MVC    X8(X1,R13),TCBDSP(R11) MOVE DISPATCHING PRIORITY     M4160 03688019
         MVC    CHPKE(X1),TCBPKF(R11) SAVE PROTECT KEY IN CSCB       M3767 03700719
         MVC    X0(X1,R13),TCBFLGS(R11)  SAVE TCBFLGS                 I272 03701019
         MVC    X1(X3,R13),TCBTCT+X1(R11)  SAVE TCT PTR               I272 03701519
         MVC    X12(X4,R13),TCBTCC(R11)  SAVE TASK COMPLETION CODE    I272 03702019
         XC     TCBFSA+X1(X3,R11),TCBFSA+X1(R11)                      I272 03702519
                                           ZERO PGM SAVE AREA PTR     I272 03703019
         LA     R1,CHSPB            ADDRESS OF SUBTASK TCB            I272 03703519
         DETACH (1)                                                   I272 03704019
         USING GETPTWT,R7                                            M4160 03704619
         LTR    R7,R7               DOES GWT STILL EXIST                   03705219
         BE     SD06330              BRANCH NO GWT                    I272 03706019
         L      R14,LCTTCBAD        GET INITIATOR'S TCB.
         L      R14,12(R14)         BUMP TO THE TIOT.
         CLI    0(R14),C'F'         FIXED INITIATOR?
         BE     SD06330             BRANCH TO KEEP CURRENT REGION.
         FREEMAIN R,SP=247          FREE REGION                       I272 03707519
         MVI    GPSUBP,POOL247      INDICATE GET REGION               I272 03708019
         XC     GPADDHO(X8),GPADDHO  ZERO SPECIFIC ADDRESS            I272 03708519
         TM     X7(R13),LCTIHIER    TEST HIERARCHY                   M2696 03709019
         BO     SD06328              BRANCH HIERARCHY 1               I272 03709519
         MVC    GPSIZEHO(X4),GPSIZET  MOVE REGION SIZE                I272 03710019
         MVI    GPSIZEHO,ENDLIST     INDICATE END OF LIST             I272 03710519
         B      SD06329                                               I272 03711019
SD06328  MVC    GPSIZEH1+X1(X3),GPSIZET+X1                            I272 03711519
SD06329  LR     R1,R7               ADDRESS OF GWT IN REG ONE        M2695 03712019
         GETMAIN ,MF=(E,(1))              GET NEW REGION              I272 03712519
         LR     R1,R7               ADDRESS OF GWT TO BE FREED       M4160 03713019
         LR     R0,R10              SP AND LENGTH                     I272 03713519
         FREEMAIN  R,LV=(0),A=(1)                                     I272 03714019
SD06330  EQU    *                                                     I272 03714519
         ST     R6,X16(R8)          STORE ADDRESS OF PARM AREA FOR    I272 03715519
*                                   SYSTEM TASKS.  R6 WILL BE ZERO    I272 03716019
*                                   FOR NON SYSTEM TASKS.             I272 03716519
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         LR    R1,R8               PARAMETER LIST POINTER                03720000
         XCTL  EP=IEFSD104,MF=(E,(1))                                    03740000
EXIT     EQU   *                   EXIT RTN USED WHEN TIMER EXP          03760019
         LR    R1,R2                    CANCEL ECB                       03780000
         LR    R7,R14                   SAVE REG 14                      03800000
         POST  (1)                      POST CANCEL ECB                  03820000
         LR    R14,R7                   RESTORE REGISTER 14              03840000
         RETURN                                                          03860000
HOURS24  DC    F'8640000'              1440 MINUTES(IN HUNDREDTHS OF     03880000
*                                      SECONDS)                          03900000
TUHRS24  DC    X'C5'              1440 MINUTES IN TIMER UNITS   A24887  03920019
         DC    X'C1'              IF SPECIFIED ON EXECUTE CARD  A24887  03940019
         DC    X'00'              THE JOB IS NOT TO BE          A24887  03960019
         DC    X'00'              TIMED                         A24887  03990019
A        DS    F                                                         04020000
ALLCORE  DC    X'00FFFFF8'                                               04040000
SPOOL253 DC    X'FD000000'                                        M3441 04041019
MPNDFLGS DC    AL2(STMCFLAG),AL2(STATFLAG)   STATUS SVC PARMS   MP65    04043018
CON385   DC    F'385'                  TU TO HUND SEC              SMF1 04046018
SMFAT    DC    V(IEFSMFAT)              SMF TCT BUILDER            SMF1 04052018
X0       EQU   0                                                   I272 04052419
X1       EQU   1                                                   I272 04052819
X3       EQU   3                                                   I272 04053219
X4       EQU   4                                                   I272 04053619
X8       EQU   8                                                   I272 04054019
X16      EQU   16                  DISPLACEMENT                    I272 04054419
X32      EQU   32                  DISPLACEMENT                    I272 04054819
SYSCNCL  EQU   X'42'               SYSTEM CANCEL INDICATOR         I272 04055219
POOL247  EQU   247                                                 I272 04055619
ENDLIST  EQU   X'80'                                               I272 04056019
PPARENO  EQU   X'80'                                               I272 04056419
TCBFSA   EQU   112                                                      04056819
TCBFLGS  EQU   29                                                  I272 04057219
TCBPOE   EQU   X'98'                                               I272 04057419
TCBSTI   EQU   X'40'                                               I272 04057619
CODE1    DC    X'00222000'              JOB CANCELLED - NO DUMP    I272 04058019
CODE2    DC    X'80122000'              JOB CANCELLED - DUMP       I272 04058419
CODE3    DC    X'80322000'              TIMER EXPIRED - DUMP       I272 04058819
CODE4    DC    X'00422000'            EXCEEDED SPEC QUEUE SPACE    I272 04059219
POSTBIT  EQU   X'40'                                                    04060000
PKEZERO  EQU   X'00'                                               I272 04062019
TCBTCC   EQU   X'10'                                               I272 04064019
TCBPKF   EQU   28                                                  I272 04066019
TCBDSP   EQU   X'23'                                              M4160 04067019
X6       EQU   6                                                   I272 04068019
X7       EQU   7                                                  M2696 04069019
X12      EQU   12                                                  I272 04070019
X24      EQU   24                                                  I272 04072019
TCORE    EQU   253                                                 I272 04074019
IEFUSEP  MVC   0(0,R1),0(R7) MOVE USER PARM FROM 253 TO ZERO            04080000
TCBJBL   EQU   40                       JOBLIB POINTER DISPLACEMENT IN  04100000
*                                       TCB                             04120000
TCBTIOT  EQU   12                       TIOT PTR DISPLACEMENT IN TCB    04140000
TCBTCT   EQU   164                     *                           SMF1 04150018
IEFPARAM DSECT                                                          04160000
IEFUSADD DS    F                        ADDRESS OF USER PARAMETERS      04180000
IEFECBLA DS    F                        ADDRESS OF ECB LIST             04200000
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IEFREMLS DS    F                       ADDRESS OF SUPERVISOR L LIST         04220000
IEFLCTAD DS    F                       ADDRESS OF LCT                       04240000
IEFTCBAD DS    F                       ADDRESS OF TCB                       04260000
IEFTIOTA DS    F                       ADDRESS OF TIOT                      04280000
IEFDCBAD DS    F                      ADDRESS OF DCB                   1270 04290019
IEFECBLI DS    2F                      ECB LIST                             04300000
IEFAECB  DS    F                       ATTACH ECB                           04320000
IEFPLEND EQU   *                                                            04328019
IEFPSIZE EQU   IEFPLEND-IEFPARAM                                            04336019
         IEFTCT                                                             04344018
DEC246   EQU   246                    NUMERIC EQUATE                        04348018
DEC24    EQU   24                     NUMERIC EQUATE                        04352018
DECO     EQU   0                      NUMERIC EQUATE                        04356018
*********************************************************************** 04380000
*                                                                     * 04400000
*        THE FOLLOWING REPRESENTS A BLOCK OF MAIN STORAGE WHICH IS    * 04420000
*        ALLOCATED FOR THE LIFE OF                                    * 04440000
*        OF THIS INITIATOR.  IT CONTAINS:                             * 04460000
*                                                                     * 04480000
*              (1)  THE LCT (LINKAGE CONTROL TABLE)                   * 04500000
*              (2)  A 2 LEVEL REGISTER SAVE AREA FOLLOWED BY THE      * 04520000
*                   THE QUEUE MANAGER PARAMETER AREA                  * 04540000
*              (3)  AN ALTERNATE QUEUE MANAGER PARAMETER AREA         * 04560000
*                                                                     * 04580000
*********************************************************************** 04600000
IEFLOT   DSECT                                                              04620000
  IEFALLCT                                                                  04640000
LCTBATMN DS    F  *****TO BE ADDED TO LCT                                   04660000
LCTSOQMP DS    F  *****TO BE ADDED TO LCT(VMS ONLY)  POINTER TO             04680000
*                      SYSOUT QUEUE MANAGER PARAMETER AREA                  04700000
LCTRTRN  DS    F  *****TO BE ADDED TO LCT(VMS ONLY) INITIATOR'S             04720000
*                      RETURN POINT                                         04740000
LCTINTSW DS    OF                  INITIATOR INTERNAL SWITCHES         1272 04742019
LCTIHIER EQU   128                 RUN IN HIERARCHY ONE                1272 04744019
LCTSDOXX EQU   32                  ATTACH IEFSDOXX                     1272 04746019
LCTMINRG EQU   16                  JOB FLUSH - USE MINPAR              1272 04748019
LCTSTART EQU   8                   TASKNAME NOT ON COMMAND             1272 04750019
LCTSTOP  EQU   4                   INITIATOR INTERNAL STOP             1272 04752019
LCTCSCB  DS    F  *****TO BE ADDED TO LCT(VMS ONLY) INITIATOR CSCB          04760000
*                      ADDRESS                                              04780000
LCTTMWRK DS    4F *****TO BE ADDED TO LCT(VMS ONLY) TIMER WORK AREA         04800000
LCTJOBLB DS    F  *****TO BE ADDED TO LCT(VMS ONLY) JOBLIB DCB PTR          04820000
LCTATLST DS    F  *****TO BE ADDED TO LCT(VMS ONLY)  POINTER TO             04840000
*                      ALLOCATE/TERMINATE PARAMETER LISTS                   04860000
REGSAVE  DS    36F                     REGISTER AVE AREA                    04880000
QMGR1    DS    9F                      QUEUE MANAGER PARAMETER AREA         04900000
QMGR2    DS    9F                      ALTERNATE QUEUE MANAGER AREA         04920000
         DS    8F                                                      1272 04920919
*  THESE FIELDS ARE NEEDED FOR L-SHAPE/INIT MERGE                 *    1272 04921819
         DS    OF                                                      1272 04922719
LCTOPSW1 DS    OC                   INITIATOR OPTIONS BYTE 1           1272 04923619
LCTPKEYF EQU   128                  DONT GET PROTECT KEY               1272 04924519
LCTDWFF  EQU   64                   DONT PROCESS DEDICATED WORKF       1272 04925419
LCTSTMDF EQU   32                   DONT PROCESS STOP/MODIFY           1272 04926319
LCTMINPF EQU   16                   GET REGION SIZE SPECIFIED          1272 04927219
LCTCANF  EQU   8                    ALLOW CANCEL ONLY AT ALLOC         1272 04928119
LCTONEJF EQU   4                    PROCESS ONLY ONE JOB               1272 04929019
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LCTICMDF EQU   2                   DONT PROCESS INITIATOR CMDS     I272 04929919
LCTEXIT  DS    F                   ADDRESS INITIATOR EXIT LIST     I272 04930819
LCTOPSW2 DS    0C                  INITIATOR OPTIONS BYTE 2        I272 04931719
LCTTIMEF EQU   128                 DONT TIME THIS JOB              I272 04932619
LCTCRF   EQU   64                  DONT ALLOW CHECKPT/RESTART      I272 04933519
LCTDSOF  EQU   32                  DONT PROCESS DSO                I272 04934419
LCTINTH0 EQU   16                  EXECUTE INITIATOR IN HIER 0     I272 04935319
LCTINTH1 EQU   8                   EXECUTE INITIATOR IN HIER 1     I272 04936219
LCTCOM   DS    F                   COMMUNICATIONS PARM AREA PTR    I272 04937119
LCTJSCB  DS    F                  ADDRESS OF JSCB                       04938019
IEFEND   EQU   *                        END OF LIFE-OF-TASK BLOCK       04940000
*                                       ORDER BYTE OF R15               04960000
IEFCSCB  DSECT                                                     I272 08960019
 IEECHAIN                                                          I272 12960019
GETPTWT  DSECT                                                          16960019
GPSIZEA  DS    1F        CONTAIN THE ADDRESS OF THE REGION SIZE LI LS17 20960019
GPADDLT  DS    1F        CONTAIN THE ADDR OF ADDR LIST FOR THE HIE LS17 24960019
GPCODE   DS    X'0'      CONTAIN 80 TO INDICATE UNCONDITIONAL REGU LS17 28960019
GPSUBP   DS    X'0'      CONTAIN SUBPOOL 247 OR 246                LS17 32960019
         DS    H'0'                                                LS17 36960019
GPHIARC0 DS    0F        CONTAINS  00                              LS17 40960019
GPADDH0  DS    1F        CONTAINS ADDRESS(SPECIFIC) ,ZERO(NON-SPEC LS17 44960019
GPHIARC1 DS    0F        CONTAINS  01                              LS17 48960019
GPADDH1  DS    1F        CONTAINS ADDRESS(SPECIFIC) ,ZERO(NON-SPEC LS17 52960019
GPSIZEH0 DS    1F        SIZE OF H0                                LS17 56960019
GPSIZEH1 DS    1F        SIZE OF H1                                LS17 60960019
GPSIZEPP DS    1F        REGION SIZE FOR P/P                       I272 64960019
GPSIZET  DS    1F        REGION SIZE FOR TERMINATE                 I272 68960019
GPADDHOR DS    1F        ORGINAL ADDRESS                           CR17 72960019
GPMINPAR DS    1F        247 + MINIMUM REGION SIZE                 CR17 76960019
 IEZATTCH                                                               80960019
         END                                                            84960019
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